

WEDNESDAY, FEBRUARY 15, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON INFANTILE PARALYSIS.

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GENTLEMEN: The importance of the subject of which I intend to speak in my lecture to-day is very great, on account of the serious symptoms often present at the commencement of the disease, and because it frequently results in a distressing and permanent deformity. The little patient who is now before you is the subject of an ordinary form of club-foot and club-hand; but, however interesting these may be to you as students of surgery, it is not to speak of them and their varieties that I have brought the case before you to-day. In her, as in a large majority of persons suffering from these deformities, they are not congenital, but are the result of a peculiar form of nervous disease to which children are liable. Indeed, it is asserted that nine-tenths of all cases of clubbed feet and hands treated in our orthopedic hospitals have the origin of which you will hear presently. I shall now read you the history of the case, hoping that enough has been said to secure your hearty attention.

HISTORY.—Ellie O'H., æt. 6 years, admitted to the children's asylum February 25, 1869.

Family History.—She is the third of six children, the oldest of whom is between twelve and thirteen. The second child of the family died when sixteen months old, of "summer-complaint." At this time, and when Ellie was about four months old, her mother began to suffer from tertiary syphilis, having nodes on the bones of the skull, on both tibiae, and on the metacarpal bones. In May, 1870, I saw the mother, and found her suffering with nodes and specific ulcers on both legs, with numerous scars about the knee and over both tibiae. On the left leg there were seven granulating ulcers. Of her children only the oldest and Ellie are now alive, the last three having lived but one or two weeks after birth. They none of them suffered from eruptions, but soon after birth began to waste, and died from exhaustion. The oldest child is perfectly healthy. The father died two years ago from profuse hæmatemesis,—I believe the result of cirrhosis of the liver. His wife denies that he ever had primary, secondary, or tertiary syphilis.

Previous history of Ellie's illness is as follows: When born, she appeared to be perfectly healthy, and continued so until four weeks old, when she fell from bed. During the next two weeks she was fretful, and at the end of that time a lump appeared near the junction of the lumbar vertebra with the sacrum. This was not very painful, nor tender to touch, nor red, and was about the size of an egg. It seems to have disappeared by suppuration. After this she continued well until she was two years old, when she walked from Sixth and South Streets to Shippen Street on a very hot day. During the next two weeks she was fretful, had a poor appetite, and was a little feverish; but her condition did not attract much attention, until one afternoon, two weeks after her walk, when she was put to sleep, as well as usual. When she awoke, she could not stand, having lost the power of the left side. The left leg was entirely motionless, and, when held up, fell as if dead. In the left arm there was slight power of movement. The power of the right side was perfect, and the face was natural and not drawn to either side. Sensation upon the affected side was certainly not lost, and it was possibly a little hyperæsthetic. She had some headache, but there were no other cerebral symptoms,—neither convulsions nor somnolence. Her condition remained the same during the ensuing week, when she began to improve slightly, the earliest change being noticed in the

hand and arm. Later, improvement occurred in the leg, and at the end of two months she began to walk a little.

Electro-muscular contractility and sensibility were not tested at that time. About five or six months after the occurrence of paralysis she began to have "fits," which sometimes came on two or three times a day. The convulsive movements affected the upper more than the lower extremities. She did not bite her tongue, but there was frothing at the mouth, and after the attack she remained stupid for about half an hour. Their whole duration was four or five months. Immediately preceding their onset she suffered from hard, painful swellings on the head, especially over the frontal bones. There was at the same time enlargement of the lymphatic glands of the neck. About two years ago she first had swelling of the knee and of the back of the hand. At the same time there was ulceration of the left side of the head, immediately in front of the ear, with disease of the left frontal bone. When she was admitted to this hospital she was very thin and weak, and since then has suffered several times from acute inflammatory swellings, partly synovial and partly bony. The left side is more frequently and more severely affected than the right. In July, 1869, she had synovitis of the left elbow and knee. In March, 1870, the right side was affected, and later the knee and elbow on the left were involved. Upon all these occasions the disease yielded to specific treatment.

Present condition, June 13, 1870.—A blonde, rather thin, and sits with her head drawn towards the left side. Left sternomastoid muscle is rigid. When still, her face is perfectly straight, but when she laughs it is slightly drawn towards the left. There is loss of power of the extensor and supinator muscles of the left forearm. The hand is flexed at right angles with the arm, and the latter is strongly pronated; and this deformity becomes more marked when she attempts any movement of the part. The fingers are strongly flexed, though she can extend them by a strong effort,—the movement being irregular. The hand is easily extended by passive motion.

There is no visible atrophy of the muscles of either arm or forearm on this side, and the circumference of the forearm immediately below the elbow is one-eighth of an inch greater than on the opposite side. At middle and at wrist the measurements are the same. The upper half of the radius appears to be thickened from inflammatory attacks which have occurred in the last two years. The extensor muscles and supinators respond very feebly to the induced current; the flexors and pronators, more vigorously.

When sitting with the feet unsupported, the left is extended and turned inward, but when standing it is decidedly everted, producing imperfect valgus. The great toe is straight, the others being decidedly everted and strongly flexed. All the muscles of the leg are much softer than on right side, and in the thigh there is visible atrophy of the adductors and sartorius. The circumference of the right thigh at its middle is $10\frac{1}{4}$ inches, of the left only 9 inches. The right leg just below the knee measures $7\frac{1}{2}$ inches, and the left $7\frac{1}{4}$ inches.

Over the left frontal bone there is a depressed white cicatrix. Just anterior to the left ear, in the cicatrix left by the ulceration occurring when $2\frac{1}{2}$ years old, is a well-marked keloid growth. Upon the back, at the junction of the lumbar vertebra and sacrum, is a large, depressed, white scar, the result of the disease occurring after the fall from bed. There are other scars upon other parts of the body.

There are no symptoms connected with the digestive system. The tongue is clean. The teeth are decayed and irregular; their development is imperfect, and the edges are serrated. Lungs and heart are healthy; and there is no genito-urinary disturbance, except a slight leucorrhœa.

The points to which I wish to call your special attention in the clinical history just read are the following: the suddenness of the onset of the disease; the complete—or, at least, almost complete—motor paralysis of the left side, while sensation remained unaffected; the utter absence of any cerebral symptoms; the rapid recovery, which began in the arm and not the leg, one week after the attack of paralysis occurred.

I beg you to notice, too, that this recovery has not been complete, but that there is still some loss of power in the muscles of the extremities, with atrophy, flabbiness, and the curious deformities, clubbed-hand and clubbed-foot. In the leg, the alterations of the muscles are more manifest than in the arm, in which the diminution in size does not show at all. This, however, I am not inclined to attribute to the absence of wasting in the extensor and supinator muscles of the hand, but rather to the increase in the size of the bone,—the result of the specific disease which she has inherited.

You notice that your attention is not especially directed to this. I will not discuss its bearing upon the case until we come to study the cause of the disease. Remembering these points, I will attempt to determine the nature and seat of the disease which has produced the distortion in the extremities. It is a hemiplegia, which, as you know, is usually due to some cerebral lesion. Only two diseases would be likely to occur in a child so young as this was at the time of the attack, and even they are very infrequent. I allude to cerebral and meningeal apoplexy. In the former of these the blood is poured out into the substance, and in the latter upon the surface, of the brain, in the cavity of the arachnoid, the meshes of the pia mater, or between the bone and the dura mater. Both varieties of apoplexy are usually ushered in and followed by severe symptoms. If this paralysis were due to the existence of a coagulum of blood in the cerebral substance, its onset would have been marked by delirium or convulsions, while these would have been followed by somnolence or deep coma. In this case, however, the only cerebral symptom complained of is headache; and the history very distinctly states that there was an entire absence of convulsions, stupor, or coma at the time the paralysis appeared. Convulsions supervened, however, five or six months after the hemiplegia, and we think, without doubt, from another cause. They obviously had no association with the original nervous disease, but, as they were preceded and accompanied by painful swellings of the cranial bones, they possibly had a connection with the specific affection from which the child has suffered so severely.

If the hemiplegia here had a cerebral origin, the arm would be likely to have suffered more than the leg; while in this case the paralysis was originally complete in the lower and but partial in the upper extremity. The history which you have heard also tells us that improvement commenced in the arm, and that it was only at a later period that the child began to regain the power of the leg. This is not likely to be true of paralysis, which is the result of blood effused into the substance of the brain. Moreover, apoplexy would have been attended with more disturbance of sensation than was present here, for, instead of having anæsthesia, sensibility, if changed at all, was slightly augmented. The paralysis of cerebral hemorrhage would not be followed by the deformities which we see here, while they are the ordinary result of another form of nervous disease which is frequent in children. Nor is the peculiar atrophy of the muscles which you see in this child the result of apoplexy. If you examine the thigh closely, you notice that the diminution of its circumference, which amounts to an inch and a quarter, is chiefly due to loss of size in the adductor muscles, while there is a shallow groove in the line of the sartorius. In the disease to which I have alluded, the atrophy is uniform, and does not affect single muscles or groups of muscles.

Nor can we believe that the hemiplegia here was due to meningeal apoplexy; for if blood had been poured out upon the surface of the brain, the earliest symptoms would probably have been convulsive movements, first affecting the eyes. There would have been strabismus, the intensity of the convulsions would have increased

rapidly, and they would have been followed by stupor or coma. Nothing of the kind has been recorded in the history which you have heard. In meningeal apoplexy, too, paralysis is not even a common symptom, for Legendre met with it in only one of nine cases, and Rilliet and Barthez in one of seventeen. Here, however, the paralysis was the striking and alarming symptom. Indeed, I believe that we may conclude that this child's brain was healthy at the time the palsy occurred; and if it were not, the disease did not have its origin in hemorrhage into the substance or upon the surface of the organ.

Let us now examine the spinal cord. You see that there is no distortion of the spine, and that there is no evidence of tenderness when pressure is made over the vertebræ. Some of you may have supposed that the disease was due to inflammation of the cord; but, if so, the disorder would not have improved so rapidly as it has done here, for myelitis is a progressive disease. It is also attended with loss of sensation as well as motion, which is not the history of this case. Myelitis, too, is accompanied by paralysis of the bladder and rectum, and the patient's urine is apt to be highly alkaline. All these were totally wanting here.

Then we conclude that we do not have to deal with inflammation of the cord; but I believe that the affection is one of this organ, and that the girl is suffering from what is commonly called infantile paralysis,—a disease which is by no means infrequent. The symptoms which you heard detailed when the history was read, and to which I especially directed your attention afterwards, most positively support the diagnosis which we have made.

(To be concluded.)

ORIGINAL COMMUNICATIONS.

CASES OF ABDOMINAL TUMOR

ATTENDED WITH PROFUSE SWEATING; WITH REMARKS ON THE INFLUENCE OF THE ABDOMINAL SYMPATHETIC NERVE OVER THE STATE OF THE SKIN AND INTESTINAL MUCOUS MEMBRANE.

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CASE I.—*Cancerous tumor in right axillary; intra-thoracic cancer(?); abdominal tumor,—presumably of a cancerous nature; obstinate constipation; profuse sweating, at times unilateral; emaciation; cachexia; death. No autopsy.*

BAIRD, a laboring man, æt. 64 years, came under my observation March 11, 1864. He had enjoyed very good health until a few years previously, when he noticed a tumor low down in the right axilla. This now appeared as a hard, lobulated mass, with a base more than five inches in diameter, extending downwards as far as the fourth or fifth rib, and backwards under the scapula. It was firmly attached to the ribs, was perfectly dull on percussion, and presented marked pulsation and a distinct thrill. It did not cause any pressure on the axillary plexus of nerves.

On auscultating the tumor, a distinct, high-pitched aneurismal whirr was heard, which could be heard also from the base of the tumor along the upper part of the right thorax to the upper part of the sternum. In the recumbent position this sound was much less distinct, and was replaced by bronchial respiration. There was also bronchial respiration over the posterior part of the right thorax. There was a soft murmur, with the systole of the heart, transmitted towards the apex. He had also suffered from attacks of dyspnea. Auscultation and percussion over the left lung gave normal results.

He complained of severe shooting pain in the course of the

right sciatic nerve. There was also tenderness along the spine, increasing from the middle of the dorsal region downwards, with a puffy condition of the subcutaneous tissue around the lumbar region. There was an oval elevation on the right side of the vertebral column, less than one inch in height, and extending from the head of the tenth rib downwards for about four or five inches. This was moderately tender on pressure, and had gradually increased during the last six months; it pulsated, and presented a marked thrill. There was excessive pulsation of the femoral arteries, with marked thrill. On examining the epigastrium, a hard, immovable, pulsating tumor was detected, corresponding to the projection in the back.

He had lost some flesh and much strength, and presented a markedly sallow and cachectic appearance. His pulse was feeble, not rapid. He suffered much from profuse perspiration. His bowels were constipated, requiring the daily use of laxatives. He had some difficulty in passing urine, which was usually high-colored, and contained mucus and remarkably large and numerous crystals of oxalate of lime.

For some months no marked change occurred, but all the symptoms gradually aggravated. He lost flesh and strength, and presented a more markedly cachectic appearance. The pain was almost constant in the axillary tumor, at times extending up the right side of the head, in the back, and also in the course of both sciatic nerves. It was described as a burning, shooting, tingling pain, and to a great extent prevented sleep. It was relieved for a time by aconite in large doses; but this lost its effect, and he gained only transient relief from large doses of morphia.

The tumor in the right axilla slowly increased in size. The projection in the back also increased, and pulsated more strongly.

The sweats continued very profuse, and were not controlled by quinia or mineral acids. The constipation continued marked, requiring large doses of purgatives, as podophyllin gr. ss, and ext. colocynth. comp. gr. ij, to secure an evacuation.

The urine varied a good deal in quantity, but was usually scanty, high-colored, and passed with difficulty. His appetite was fair, tongue clean, and he never vomited. The pulse was more frequent, but not more feeble.

In August, the axillary tumor was much larger, and pulsation was more marked in the one along the right side of the lumbar and lower dorsal vertebrae. The edge of the liver was found to project below the ribs, and was hard and resisting on pressure. He still sweated very profusely. The urine was very much reduced in quantity, but became more free under the use of stimulating diuretics. He had several attacks of hemorrhage from the bowels. Pressure below the xiphoid cartilage upon the anterior surface of the abdominal tumor caused pain in the course of the lumbar and sciatic nerves.

By December 7, his legs were almost paralytic, and a bed-sore had begun to form over the sacrum. The axillary tumor had increased, and extended up under the pectoral muscle. The lumbar tumor projected more, and pulsated more powerfully.

In February, 1865, he was found thinner and weaker. Local symptoms but little changed. He complained of occasional difficulty in deglutition. Urine continued scanty. He still sweated profusely, and insisted that if he turned upon either side in bed, the *opposite* side would break out in a copious sweat in a few minutes, while the one upon which he lay would remain dry. He stated that this occurred invariably, and that the sweat was limited accurately to one-half of the body. The loss of power over the legs increased. The tumors slowly enlarged, the aneurismal whirr heard above the axillary one diminishing. His emaciation and cachexia progressed, and he died a few months later. Owing to unavoidable circumstances, I had lost sight of him, and no autopsy was obtained.

It is greatly to be regretted that no post-mortem examination was made in this case, to ascertain positively the condition of the viscera. In the absence of this, however, we may still be able to form a definite view of the nature of the disease. In the first place, there

can be little doubt that the tumor in the right axilla was a cancer of the axillary glands. Were there no other evidences in favor of this view, it would be sufficient to refer to the age of the patient, to the rapid deterioration of health, to the marked cachexia, to the intense pain, and to the characters of the growth itself. It seems probable that the pulsation observed in it was partly due to its great vascularity, but was partly also derived from the axillary artery, with which the upper border of the tumor must have been in contact. In like manner, one explanation that I would suggest for the aneurismal whirr heard at the upper margin of the growth is that it was due to pressure upon the walls of this artery. Unfortunately, the brachial artery was not ausculted, to learn if the bruit was transmitted in that direction. The question suggests itself, however, as to the presence of an intra-thoracic aneurism. I confess that I am inclined to explain the thoracic symptoms upon the supposition that the mediastinal and bronchial glands had become the seat of cancerous enlargement, so as to press slightly upon the œsophagus, upon the right bronchus, and possibly also upon the innominate or right subclavian artery. The symptoms unquestionably pointed to the presence of some intra-thoracic tumor, and the existence of cancer of the axillary glands renders it highly probable that the deep cervical and intra-thoracic lymphatics were involved in the same disease. The systolic mitral murmur appeared to be hæmic in character, rather than to be due to any organic change in that valve. It is obvious that the view taken of the nature of the intra-thoracic tumor must influence greatly the opinion formed as to the nature of the abdominal tumor. The symptoms connected with this latter show it to have been a large pulsating mass occupying the postero-superior part of the abdomen, projecting posteriorly in the left lumbar region, and causing pressure upon the nerves of the lumbar plexus. This tumor was the seat of intense pain, and also caused severe sciatica from pressure on the nerves. Was it, then, a large aneurism of the abdominal aorta, or a cancerous mass? The absence of gastric derangement precludes the idea that the stomach was the seat of extensive cancerous degeneration, and the position and relations of the tumor are also opposed to the idea that either the stomach or the pancreas was the seat of the growth. It appears quite possible, however, to explain all the symptoms upon the supposition of malignant disease of the abdominal lymphatic glands, involving especially the glands on the left side of the vertebral column, and so forming a mass which might cause a projection posteriorly in the lumbar region, and which might readily have marked pulsation communicated to it by the abdominal aorta. It is also possible that the urinary symptoms may be explained, in part at least, by the pressure of such a mass upon the ureter of the left kidney. It must further be borne in mind that it is extremely rare to find an association of aneurismal and cancerous disease in the same subject, and that it is also rare for large aneurisms of the thoracic and abdominal aorta to occur in the same subject; while, on the other hand, multiple cancerous tumors may be expected when the lymphatic glands are the seat of malignant disease. It is, however, by no means my desire to pretend to establish a positive diagnosis as to the nature of the abdominal lesion, but only to suggest the view which appears most plausible and most in accordance with the general laws of pathology.

Finally, I would in this place merely call attention to the coexistence of *obstinate constipation* and *profuse sweating*, reserving any detailed remarks upon these symptoms until after a second case has been described, in which cancer of the abdominal glands was diagnosed before death and determined to exist by post-mortem examination.

CASE II.—*Obscure abdominal pain; hydrocele; marked constipation; profuse sweating; emaciation and cachexia. Autopsy.—cancer of the abdominal and mediastinal lymphatic glands.*

Mr. H. was first seen by me in consultation with Dr. A. H. Smith, in the early part of January, 1870. He was 62 years of age, of large frame, with a pale but not sallow complexion, and but moderately emaciated. His occupation for many years past had been that of a dispensing druggist, and his habits were very sedentary. He had enjoyed uniform good health, with the exception of a tendency to constipation, until September, 1869. He then began to suffer pain in the region of the abdomen, which, he states, attacked him suddenly, after exertion, in the right lumbar region, and shooting round above the crest of the right ilium. After this time he was scarcely ever free from abdominal pain, although there were marked paroxysmal exacerbations of his suffering. At times the pain would be complained of in the right side, extending from the lumbar region around to the front. At other times it was most severe in the right iliac region, extending in the line of the groin; while again it was occasionally most severe over the lower lumbar vertebrae. The pain was at times extremely severe, sharp, and lancinating in character. It was always described as deep-seated.

The appetite continued fair, and digestion was well performed; no vomiting occurred, save on a single occasion after the ingestion of some indigestible food. There was, however, a marked increase in the constipation, which had been more or less habitual, so that now the daily use of strong purgatives secured only one large, firm passage at intervals of three or four days. The feces were rather dry, but were always of good color and well formed.

On several occasions during the last four months of his life oedema of the scrotum, of transient character, appeared; and for two weeks before his death there was slight hydrocele on the left side.

There was some enlargement of the lymphatic glands in the right groin, and, by deep pressure, enlargement could also be detected in the glands in the right iliac fossa. Deep pressure in this region, and also below the epigastrium, caused pain: the tenderness in the latter place only existed late in the case. No tumor could be detected in the abdomen. The liver extended about three-fourths of an inch below the margin of the ribs. No nodules could be felt over its surface.

There had been but moderate emaciation until six weeks before death, when he began to lose flesh rapidly. The surface was pale, the conjunctiva pearly white, and not the least trace of sallowness or cancerous cachexia was present. One of the most marked symptoms in his case was profuse sweating, which was as copious as in the last stage of tuberculous hectic. The perspiration was usually greatest during sleep, and was much more profuse than could be explained by the degree of debility present. The temperature of the surface was somewhat elevated.

The respirations were unaffected until near the close of the case, when occasional stridulous and prolonged expiration was noticed. The heart-sounds were healthy, and the pulse became frequent only as the debility grew extreme.

The urine was abundant, and passed without difficulty; it was of normal color, contained no albumen, and usually deposited a very abundant sediment of pink granular urates.

The diagnosis of the case was very obscure. The existence of serious organic disease of the abdominal viscera was eliminated by careful examination. The absence of vomiting, or of epigastric tumor, indicated that the stomach was not extensively diseased. The only evidences of hepatic disturbance which had ever been present consisted in a severe attack of pain in the region of the liver, followed by transient jaundice, some years before; and the absence of enlargement of the liver, and of jaundice or ascites, as well as the seat of the pain and the character of the stools, were opposed to the view that this organ was the seat of disease. The spleen was neither enlarged nor tender. There was no appreciable enlargement of the kidneys, and the urine, as already stated, was essentially healthy. The absence of vomiting, of fatty stools, and of tumor in the epigastrium, and the seat of the pain in the back, were opposed to the view of cancer of the pancreas. Finally, the absence of abdominal tumor, and of aneurismal murmur heard

along the spinal column, either anteriorly or posteriorly, disproved the idea of an aneurism of the abdominal aorta. In addition to this negative evidence, there were the enlargement of the glands in the right groin, the deep-seated enlargement in the right iliac fossa, the passive hydrocele of the left side (due to pressure upon the spermatic vein), and the character and seat of the pains, which all indicated an enlargement of the abdominal glands along the spine, pressing upon the nerves issuing from the vertebral column about the lower dorsal and upper lumbar region. The age of the patient and the marked emaciation rendered it probable that this enlargement of the glands was cancerous in nature: so that the diagnosis arrived at was *cancer of the abdominal glands*. In this connection, I would again call attention to the presence in this case of *obstinate constipation and profuse sweating*. The treatment which had been employed consisted in the use of various purgatives, anodynes, and anti-spasmodics.

A few days after the above examination was made, the patient was seized with sudden and most acute pain in the lower part of the right thorax, which was increased by breathing or movement of any kind. At the same time there was repeated spontaneous vomiting of a peculiar curdy or cheesy-looking material; the bowels became somewhat loose, the stools being large—not more than two or three daily—and healthy in appearance, save that they were mixed with particles of whitish cheesy matter. The skin became more hot, the abdomen highly tympanitic, the pulse very frequent and feeble, and the respirations hurried and shallow. Physical examination revealed impaired movement of the lower part of the right thorax, with deficient resonance, though not actual dullness, on percussion, and feeble respiration, with coarse crepitus on auscultation. The patient had been confined to bed for several weeks, and there had been no exposure to account for this sudden inflammatory attack. He was put upon the use of stimulus, beef-tea, carbonate of ammonia, and quinine, but steadily sank, and died in a few days,—about five months from the first appearance of positive symptoms of disease.

Autopsy.—Head not examined.

Thorax.—Heart, pericardium, and aorta healthy. The left lung was healthy. On the right side there was about one quart of turbid serum in the pleural sac; the lower lobe of the lung was collapsed and dense, but not inflamed; and the lower portion of both the visceral and parietal layers of the pleura was coated with a thick layer of soft and oedematous recent lymph. The glands in the posterior mediastinum and some of the bronchial glands were much enlarged, and on section and microscopic examination presented the character of encephaloid cancer. The enlarged glands pressed upon the left bronchus, and thus explained the stridulous breathing which had been noticed.

Abdomen.—The liver was somewhat enlarged, its capsule opaque, and its surface indistinctly nodular. Upon section it was found to present the appearance of an early stage of cirrhosis. The gall-bladder was tightly adherent to the duodenum; its walls were also thickened, and its cavity contained about a dozen small and large calculi. The biliary ducts were pervious.

The spleen was rather small, and its trabecular structure somewhat increased.

The kidneys were flabby, congested, and evidently somewhat fatty.

The intestines were much distended with flatus, their walls thin and diaphanous, and the surface of the mucous membrane quite dry. The ileum and colon contained a considerable quantity of firm, dry, dark feces.

The glands in the right groin were enlarged, and on section presented an encephaloid appearance. The same condition was found in the glands in the right iliac fossa. The lymphatic glands along the spinal column were also the seat of encephaloid cancer, and at the lower dorsal and upper lumbar region formed a flat mass about four inches in width and two inches in thickness, extending on either side of the vertebrae. This mass was composed of enlarged and cancerous glands; it was so tightly adherent to the anterior surface of the vertebrae as to require the use of a scalpel to separate the adhesions. The pancreas was also closely adherent to and partly imbedded in this cancerous mass; but upon careful dissection it appeared that the disease had not actually invaded the gland.

tissue. The aorta and vena cava were also closely adherent to the cancerous glands. The circumstances under which the autopsy was made prevented a minute dissection of the parts; there can, however, be no question but that the solar plexus was involved in or encroached upon by the disease.

Microscopic examination of the enlarged glands showed the characteristic appearance of encephaloid cancer.

These two cases have been reported thus in detail, partly on account of their clinical interest as examples of a rare form of cancerous disease. The chief object, however, in placing them together is because they both presented the peculiar combination of obstinate constipation with profuse sweating in connection with abdominal tumor. The degree of sweating in both of these cases was quite remarkable, exceeding even that which attends the hectic fever of tuberculosis, and certainly most unusual in the course of cancerous disease. It is necessary, therefore, to search for some condition, peculiar to these cases, which may serve to explain this phenomenon. The one feature which they present in common is the existence of a tumor lying deeply in the upper part of the abdomen, in contact with its posterior wall. In the second case, this tumor was demonstrated to be a cancerous mass, formed by the abdominal lymphatic glands, and in such a position as necessarily to have involved to a more or less complete extent the great solar plexus of the sympathetic nerve. In the first case, although, owing to the want of post-mortem examination, there may be some doubt in regard to the exact character of the abdominal tumor, the seat of the mass must have been such as to have caused pressure upon a portion at least of the solar plexus.

We are, it is to be trusted, becoming more accurately acquainted with the control exercised by the abdominal sympathetic over the relation which exists between the vascular and secretory condition of the skin and that of the intestinal mucous membrane. There is but little doubt that in all choleraic conditions, whether in true cholera or in the analogous states produced by some irritant poisons or drastic purgatives,* the profuse serous flux from the intestines, on the one hand, and, on the other, the cold, pale, and shrunken cutaneous surface, are due to a paralysis of the abdominal sympathetic nerve from over-irritation of its peripheral branches distributed to the intestine. The obvious result of such a paralytic condition would be an extreme dilatation of the vessels of the intestinal mucous membrane, with a profuse serous discharge. This explanation of the pathology of choleraic collapse was advanced by Rilliet and Barthez;† it has also been ably supported by Sedgwick (*loc. cit.*) and by Jeaffreson,‡ and is the view that Dr. J. F. Meigs and myself have adopted in our article on Cholera Infantum.‡ That paralysis of the intestinal branches of the abdominal sympathetic is followed by profuse serous flux, is confirmed by the experimental researches of Moreau,§ who found that, after section of the intestinal nerves in animals, a copious secretion of alkaline serous fluid took place into the bowels. Some doubt may exist as to the exact relation which subsists between the serous flux from the bowel and the state of the skin in choleraic conditions, as to whether the latter becomes pale, shrunken, and cold owing merely to the drain of fluid from the blood, or owing to irritation of the branches of the sympathetic nerve, transmitted from the abdominal ganglia, causing contraction of the arterioles of the skin. In all probability, however, both of these influences are active in such cases and aid each other in the production of the phenomena.

The direct influence of the sympathetic nerve over the vascular supply of the skin and the amount of perspiration is also shown in cases of severe injury or section of the cervical portion of the spinal cord or of the cervical sympathetic, where, in addition to the changes in the pupils and in the temperature, and the production of congestion of the face, abundant sweats have been noticed.|| In endeavoring to explain the phenomena in the cases above reported, the idea has suggested itself that the most peculiar of the symptoms, the combination of profuse sweating with obstinate constipation, might be accounted for by the fact that the ganglia of the abdominal sympathetic were more or less involved in the disease, and that, consequently, their activity must have been modified. It seems, however, difficult to apply this supposition satisfactorily. It may indeed be readily understood that in choleraic conditions the fibres of the sympathetic distributed to the intestines should be temporarily paralyzed from exhaustion of their excitability, whilst a much less degree of irritation should be transmitted to the fibres governing the calibre of the arterioles of the skin. But it is more difficult to imagine a condition in which the portion of the abdominal sympathetic distributed to the intestines—and, in my first case, to the kidneys—should be the seat of such irritation merely as would cause a diminution of the watery part of the secretions of these organs, while the vessels of the skin should be relaxed so as to allow a profuse flow of sweat. Was there a condition of reflex paralysis of the vaso-motor nerves of the cutaneous vessels? or did the profuse sweating occur merely as a vicarious discharge? I confess that I incline strongly to the former view. Certainly this supposition of some reflex connection between the state of the abdominal ganglia and the cutaneous vessels would be rendered far more probable if the first patient's assertions are to be credited (and I know no reason for doubting them) as to the remarkable fact that, when lying on either side, there would invariably occur in a few minutes profuse sweating, accurately limited to the upper side of the body, while the lower side (in contact with the bed) would become dry. I am not aware that this peculiar feature has ever been noticed before in this connection, or, indeed, that the special symptoms to which attention has been devoted in these remarks have been observed in cases of abdominal tumor. It is quite possible that, in the cases here reported, they may have been due to some unappreciated cause, entirely distinct from that to which I have been disposed to attribute them. The cases are offered, however, as a trifling contribution to one of the most interesting and obscure questions of modern medicine,—the pathology of the great sympathetic nerve.

TRAUMATIC RUPTURE OF THE URETHRA,

RECENT AND CHRONIC.

BY WILLIAM HUNT, M.D.,

One of the Surgeons to the Pennsylvania Hospital.

IN cases of perineal section or external perineal urethrotomy for the relief of stricture, it seems now to be settled by competent authority that the retention of the catheter for any length of time after the operation is not only useless, but may be followed by most disastrous results.

Among other articles which may be consulted in regard to this point, the following may be especially referred to:

M. Rendu, Sur les Troubles fonctionnels du grand Sympathique observés dans les Plaies de la Moëlle cervicale.—*Archiv. Gén. de Méd.*, Septembre, 1869, p. 286.

R. Bartholow, M.D., Unilateral Sweating of the Head: its Relation to Disorder of the Sympathetic System.—*Amer. Jour. of Psych. Med.*, January, 1869, p. 134.

William Ogle, M.D., A Case illustrating the Physiology and Pathology of the Cervical Portion of the Sympathetic Nerve.—*Medico-Chirurgical Transactions*, vol. lii., 1869, p. 151.

* See Sedgwick's article "On some Analogies of Cholera," in *Med.-Chir. Trans.*, vol. li., 1868, p. 1.

† *Edinburgh Medical Journal*, December, 1866, p. 530.

‡ Meigs and Pepper on Diseases of Children, 4th ed., 1870, pp. 383-387.

§ *Comp. Rend. de l'Acad. des Sciences*, t. 66, p. 554, 1868, in *Med. Times and Gaz.*, April 11, 1868, p. 397.

How far the disastrous results are to be attributed to the stated cause is doubtless questioned by many; for all surgeons of large experience know that the bladder and its appendages are treacherous organs to deal with surgically, especially where the subjects of interference, as is most frequently the case, have been victims of chronic trouble brought on by dissipation or neglected accident.

With such the local difficulty is by no means the only source of anxiety, but too often there is a certain uræmic cachexia present, which adds very materially to the gravity of the prognosis. Is it any wonder that such as these should sometimes succumb to attacks of surgical fever? And is it not too much to say that the fatality is due to an error in practice which, whether so or not, has been made and advocated for many years by most distinguished surgeons? Even persons otherwise most healthy have been attacked with rigors after the simplest introduction of an instrument into the bladder, and I believe cases are on record where death has followed the operation.

Certain unpleasant local consequences are known to have followed from the prolonged retention of instruments in the bladder, but, from a very ample experience in a great variety of cases, I am prepared to say that I believe that the intolerance of that organ and the urethra to instruments has of late been greatly exaggerated. I know of one case where for four years, through shame, a boy carried *three and a quarter inches* of a broken and jagged glass stem of a thermometer in his bladder. He suffered locally only, and finally revealed the cause of his difficulties, and was completely relieved by the operation of lithotomy.

But, whether the consequences of retaining instruments is exaggerated or not, the "*cui bono*" must settle the question. It is sufficiently shown that in the operations on chronic cases it is not necessary.

The procedure, if it does not interfere with, at least does not help to, a favorable result; in most cases it seems to be useless,—many surgeons consider it injurious; and therefore the practice should be abandoned.

It is not so easy to settle the question as to what course to pursue in regard to the retaining of instruments in recent traumatic rupture of the urethra, should the surgeon be so fortunate as to gain access to the bladder by the natural passages immediately or very soon after the reception of the injury; and it is to contribute something to such an inquiry that the present paper is written.

Sometimes in the Pennsylvania Hospital a year will pass without a single case of accidental rupture of the urethra being admitted; but during my term of service of six months, now about to close, no less than *eight* cases of this serious injury, recent and remote, have come under my notice. Four of these cases I saw from the very beginning, three of which were under my immediate treatment. The others were in various stages as to time, but *all* were of the traumatic order.

Case I.—W. P., æt. 21, admitted April 7, 1870, into Dr. A. Hewson's wards. He had been very severely gored by a bull about thirty-six hours before admission. The perineum, the adjacent surface of the right thigh, the under surface of the penis at its scrotal junction and about two inches forward in the median line, were greatly lacerated. Infiltration had taken place into the perineum and scrotum, and at the same time the bladder was enormously distended. Attempts had been made, before his admission to the hospital, to introduce instruments into the bladder, but without success. A few trials in the house also demonstrated their futility, and free incisions were made in the perineum and scrotum. A flow of dark blood and some urine followed; but the bladder remaining unrelieved, and it being night, Dr. Hewson punctured it above the symphysis and secured the canula in position. Of course there was great shock from the beginning, and the prospect of the patient surviving the immediate effects of the injury was very doubtful.

The next day, the patient having reacted, external perineal urethrotomy was performed by Dr. Hewson, and a catheter was passed into the bladder, and retained, being withdrawn at varying intervals for cleansing. It is not my intention to give a full history of these cases, but merely to quote them as illustrating the points under discussion. This patient is still in the house (January 25, 1871), but expects soon to leave. I took charge of him August 1, 1870. Great sloughing, immediately following the injury, had of course occurred. There was hypospadias. A small amount of urine and much pus was passing by the supra-pubic opening. A large but healthy ulcer was on the inner surface of the right thigh. There were perineal fistulas, from which urine was discharged, but most of it escaped from the posterior end of the split urethra at the scrotal junction.

No very material change was made in treatment by me. The patient's general health has improved, and with the improvement the ulcers and fistula close sometimes, again to open; but there is an almost complete control over the bladder, the patient being able to hold his water for two hours. He is up and dressed, and moves about freely. A consultation was held with my colleagues as to the expediency of further operative interference, but it was decided not to touch him, at least at present.

Now, here is a case where I believe the first efforts of Dr. Hewson saved life. The conditions afterwards, excepting the supra-pubic opening, were all incident to the injury. Yet by some, unacquainted with the history, they might be attributed to points in the instrumental treatment.

Cases II., III., and IV. came under my care almost immediately after the reception of the injuries.

Case II.—D. O. D., æt. 13, was standing (April 18, 1870) on the head of a barrel, when it gave way, and he fell, striking the perineum on the staves. Dr. Getchell was the attending physician, and, seeing the nature of the injury, called me in consultation. There was rupture of the urethra, the scrotum and perineum were infiltrated, and the bladder distended. A catheter-point passing the anterior seat of laceration could be thrown anywhere about the perineum at will.

The patient was etherized thoroughly, and, placing him squarely on his back, I had the good fortune to introduce a full-sized catheter into the bladder. I then incised the scrotum freely. The catheter was secured, and was kept in position for eight or ten days, having been removed but once during that time. The case progressed so favorably that the surgeons were evidently looked upon as designedly exaggerating the seriousness of it; and on about the tenth day the catheter came out as the bowels were being open after a dose of oil.

The urine flowed freely through the urethra, and the boy was considered well by his parents, who, having a wholesome dread of fees, sent word to me to discontinue attendance, notwithstanding the warnings given.

The boy was a very unruly customer, and determined to have his own way. Early in June I received a note from Dr. Hewson asking me to see a case of perineal abscess in a boy at the hospital. On going into the ward I recognized my little *gamin*. The abscess communicating with the urethra was, I think, merely opened by Dr. Hewson, and no extended section was required. Instruments were used, and a flexible gum catheter could be worn and retained.

August 14.—Passes a good stream, and No. 6 bougie readily enters the bladder. For most of the time since the operation by Dr. Hewson a flexible bougie has been worn.

August 17.—Fistulous opening nearly closed; no water passes from it. Discharged, to come to the house twice a week to have a bougie introduced.

In October, the patient, having paid no attention to the directions, appeared again, now suffering chiefly from incontinence, but the water all passing by the urethra. This at first would admit but a very small bougie; but the stricture was rapidly dilated, the incontinence disappeared, and the boy was discharged, again, I suppose, to neglect himself and suffer.

Case III.—E. N., æt. 28, admitted August 2, 1870. A carpenter by trade. While working on a building, he fell,

striking the perineum on the edge of a scaffold-board. He went twenty miles out of town after the accident, not knowing its serious nature, for the bladder must have been empty at this time, although there was considerable swelling. He found that he was unable to pass his water. His surgeons did not succeed in introducing an instrument, not having a good supply, and advised him to go back to the city and to enter the hospital. He was admitted about thirty hours after receiving the injury. The bladder was greatly distended. There was rupture of the urethra. The perineum, penis, and scrotum were swollen and ecchymosed.

Placing him squarely in position, and without waiting to etherize, I at once succeeded in passing a full-sized gum catheter into the bladder. On the 4th I incised the perineum over the seat of an abscess, pus and blood being freely discharged,—the catheter being kept in its place, where it remained for eleven days. It was then removed and a silver one substituted, which could be easily introduced and withdrawn. In the mean time the swelling had subsided, and the abscess healed.

This case did so well that the patient was discharged on August 31, 1870, having learned how to take care of himself, and promising faithfully to do so.

He reported early in January, 1871, and stated that a No. 7 bougie passed easily, producing a slight stinging sensation as it went by the seat of rupture. His water is voided naturally,—no frequency of micturition or incontinence. When he crosses his legs while sitting, a slight pain darts through the perineum, to remind him of his trouble, and to admonish him as to the continuance of the use of the bougie.

During his stay in the hospital he was a very sick man, but his present condition is excellent.

Case IV.—J. H., æt. 23. Admitted August 6, 1870. Fell, twenty-four hours before, on the edge of a board from a height of seven feet, striking the perineum. Scrotum greatly distended and nearly black; perineum bulging downwards; penis contused; bladder full. Great shock. An instrument in the urethra could be thrown anywhere about the perineum; but, as in the other cases, after placing the patient in position, I passed a medium-sized catheter without much difficulty into the bladder. I then incised the scrotum on both sides very freely. The catheter was retained and opium suppositories given.

On the seventh day a large abscess was opened in the perineum. There were repeated chills, preceding abscess formations, the symptoms in every case subsiding on the evacuation of the pus and urine; these abscesses, except one at the peno-scrotal junction, were not on the line of the instrument, and all were the result of the destruction by the original injury and the subsequent infiltration.

August 25.—The catheter has been removed from time to time, is cleaned, and returned with ease. Some urine mingled with pus flows from the perineum.

September 3.—The abscess opened at the scrotal junction; the perineal abscess has closed. Small abscesses have appeared successively in the perineum and scrotum, evidently from the bruised connective tissue, as they discharge pus without urine.

17th.—The continuous use of the catheter abandoned. Patient can now pass it himself, and is ordered to do it every day. There is a small urethral fistula at the scrotal junction. Patient up and about the wards, making himself useful.

November 19.—An operation was performed to try and close the only urethral fistula remaining at root of penis. The edges were pared and brought together, and a catheter introduced for a short time. The good effects of this and another attempt were frustrated by frequent erections, which were not controlled by opium or bromides; but the opening contracted to a very small point, and was easily managed by the finger when the patient urinated, so that all the water was discharged by the natural orifice.

Discharged December 14, 1870. Reported middle of January, 1871. Condition: no fistulous openings in perineum. Passes No. 8 bougie. The fistula at root of penis more contracted, but still open, though easily controlled by the finger. General health excellent. Admonished to continue use of instrument.

The next four cases, with the exception of the first one, entered the hospital a long time after the reception of the original injury, and afford a good contrast as to condition.

Case V.—J. W., æt. 16. Healthy until about middle of May, 1869. Fell a distance of about three feet,—from the roof of a house on the ridge of a board fence,—striking on the perineum. He states that at first he felt but little pain, but soon after felt an inclination to straining without being able to void his urine.

He came directly to the hospital, where he was put to bed, the contusion dressed, and his urine drawn off by means of a catheter. The next morning the catheter was again introduced, but in the evening it was found necessary to administer ether before the operation could be successfully repeated. For six weeks after, the catheter was daily introduced without the use of anæsthetics. At the end of that time he was instructed to use it himself, although he could void his urine without its employment.

Some abscesses formed as a result of the contusions received; these were opened from time to time, but no perineal section has at any time been performed.

He was discharged, but re-entered the hospital on March 23, 1870, suffering from a new abscess of small size, and the easy and daily introduction of a catheter recommended. It was disused after his discharge from the hospital, and he applied for admission the third time with perineal abscess and incontinence. He was placed under a system of dilatation, and rapidly grew better, being now able to introduce for himself a No. 7 bougie.

Case VI.—G. W., æt. 19. In July, 1867, this patient fell from a load of hay and struck his perineum on a gate. According to his account, there was swelling, some blood flowed from the urethra, and he was unable to pass urine. Infiltration and subsequent fistula followed. About a year afterwards (July 25, 1868) he was admitted to the hospital. His condition was so generally miserable that dilatation alone was resorted to, and he left the house in September, partially relieved.

He improved very much in health by going to the country. Was readmitted in March, 1869, and Dr. Agnew performed perineal section with entire success. He remained in the house seventy-two days, and was discharged able to pass No. 14 bougie. He neglected himself; stricture formed, and fistulas followed.

Again admitted May 25, 1870. Dr. Hewson performed perineal section also with success, and when I took charge of the wards, in August, the patient was passing a flexible catheter and going freely about the wards.

Discharged November 8, able to pass a No. 7 bougie. There is a well-founded hope this time that past experience will prevent neglect.

The case is instructive, as to the constant tendency to recurrence of trouble if care is not duly exercised.

Query.—Do the changes of youth tend more to stimulate this recurrence than in those of more mature age?

Case VII.—J. D., æt. 17. Admitted June 20, 1870. This was an old subject of the trouble. Was injured seven years previously by a kick in the perineum. Passed blood at the time, and has had some difficulty in voiding his urine ever since, but had no need of operative assistance until last March. An abscess and urinary fistula formed. The treatment was dilatation. The fistula closed, and patient was discharged November 11, 1870, able to pass a fair stream of urine and to introduce a No. 2 bougie. Has since reported himself. General health much improved, and manages his urethra and bladder without difficulty by continuing the use of the bougie frequently.

Case VIII.—J. C., æt. 27. This is a patient now in the hospital, who will be the subject of further consultation.

In December, 1870, he was caught between coal-cars while coupling them. Severe contusions of the thighs, hips, and perineum were the consequence. The bladder was distended with urine, and, under chloroform, it was relieved. This was repeated for twelve days, after which time he was able to void

urine without assistance. The patient soon noticed a swelling on the right thigh, about three inches below the raphe of the perineum. After poulticing it broke out, and proved to be a urinary fistula.

On September 30, 1870, he was admitted to the hospital, and was found to have tight strictures almost continuously throughout the urethra besides the fistula. The urine passed partially both ways. As the anterior strictures were permeable, systematic dilatation was pursued, in order to fit the patient for perineal section, to relieve the posterior difficulty.

Advance was made so that a large instrument could be passed through the front obstructions; but about this time symptoms of pyæmia (irregular chills, fever, etc.) set in, and the patient was advised to leave the hospital wards for the present, and to return when his health improved.

Readmitted January 4, 1871, in very good general health. The anterior strictures, which had contracted somewhat, are being again dilated, and the patient awaits further treatment.

This, then, is my experience so far in the cases that have occurred during my term of service. Some of them will require further operative interference, and if the fortunate ones neglect themselves, they too will doubtless need the knife.

In all the acute ones, and in those that were operated upon, the instruments were retained for varying periods; in none was there a mishap that could by any observer be attributed to the catheters or bougies. Yet one might thus argue, should he see some of them at present, without knowing their history,—No. 1, for example, who had the under surface of his penis torn almost from root to glans, or No. 4, whose scrotum, penis at the scrotal junction, and perineum were almost jet black with effused blood and infiltration, and in whom, although most of the skin was saved by free incision, there were very extensive sloughs of the connective tissue.

But, say some, the retained instrument *may* do harm; therefore it should be withdrawn at all hazards. It seems to me that these cases are entirely different from those of chronic disease. I am open to conviction, and trust that the *Times* will freely lend its columns to this important subject. I must confess that at present, if I get through a broken perineum into the bladder, I feel inclined not to let go my hold, but to remain there for a little while at least, for all surgeons know that "for ways that are dark" a ruptured urethra "is peculiar."

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

MEDICAL CLINIC, SATURDAY, JANUARY 14. SERVICE OF DR. DA COSTA.

Reported by Dr. J. C. Wilson, Resident Physician.

PNEUMOTHORAX OCCURRING IN A CASE OF PHTHISIS.

DR. DA COSTA exhibited to the class specimens removed from the body of a patient who had died in the ward, a few days previously, of phthisis. The history of the case was briefly as follows.

William Nary, aged 21, born in Philadelphia, a factory-hand, unmarried, was admitted to the hospital November 1, 1870. Both parents and all his brothers and sisters died of phthisis. His own general health has always been poor; he has been thin and pale, and suffered from palpitation of the heart; during the past three years has suffered from chronic coryza. He dates the beginning of his sickness from last May, when he caught a severe cold. Cough has been present ever since. In July he was compelled to give up work. Never had spitting of blood. Is tall and very thin; chest exceedingly narrow. There is marked clubbing of fingers. Cough troublesome; expectoration puruloid; some soreness of fauces; no thoracic pain; hectic and night sweats constant and distressing; appetite fair; bowels constipated.

On admission, the physical signs indicated extensive deposit in left lung, without cavities, and deposit at right apex. There was no disease of the heart. He was placed upon suitable treatment, attention being directed especially to the sweating, and was ordered good diet.

His condition became steadily worse, the cough more troublesome, the expectoration more abundant; and, although the sweats, uninfluenced by other remedies, appeared to be controlled by atropia, he lost appetite, vomited occasionally, and soon began to suffer from dyspnoea on slight exertion. A careful examination of his chest was made regularly at intervals of three or four days, but no signs of a cavity were detected until the ninth day before death, although there were indications of deposit throughout left lung, and of an increase of that in the right. Three days before death he was seized suddenly with sharp, shooting pains in the right chest, accompanied with distressing shortness of breath, which was aggravated by lying down. The percussion note over base of right chest, both anteriorly and posteriorly, was markedly clear and of high pitch; there was absence of vesicular murmur, but in its place amphoric breathing, and a distinct amphoric echo, of metallic tone, in coughing. Subsequently a distinct gutta cadens was heard, and on the night of the 12th the man died.

At the autopsy, the right pleural cavity was found to be distended with air. It contained about a pint of sero-pus, and both surfaces were covered with recent plastic lymph. Right lung compressed to about fourth rib; its upper third tightly adherent to chest-walls. A minute opening was discovered in the pleura at lower part of upper lobe anteriorly. On section the right lung found to be moderately infiltrated with recent and cheesy tubercle. The upper lobe contained two small cavities the size of a chestnut.

An enormous cavity occupied the apex of the left lung. This was as large as the fist, and equalled fully one-half of the upper lobe; its walls were about two lines in thickness, and it was about two-thirds filled with fluid of the consistence of thin gruel. The remainder of the lung was packed with softening tubercle, which wholly took the place of the vesicular structure. At two points softening had given rise to small cavities in addition to that at apex.

This is the third case of phthisis during the present term of service in which death has been preceded by pneumothorax. The condition is readily recognized. The sudden occurrence of dyspnoea, with pain of pleuritic character, and the marked change in the physical signs to which it gives rise, together with the position of the patient and his intense distress, render the diagnosis plain. This man's sufferings were somewhat alleviated by small doses of deodorized tincture of opium, frequently repeated, and free stimulation. Another point of interest in this case was the rapid formation of the immense cavity at the left apex, and the obscurity of its signs. The only sign indicating its existence at any time was cavernous respiration, and this was not heard until the ninth day before death.

WALKING CASE OF TYPHOID FEVER.

George Illidge, West Indian, aged 17, an apprentice, was admitted January 7, 1871. This boy became ill three weeks before admission to the hospital. He began to feel weak and miserable; was feverish; had chilly sensations towards evening; lost all appetite; had severe frontal headache; pain in back; sleeplessness. Had no bleeding at the nose, no abdominal pain, no diarrhoea, but, on the contrary, a tendency to constipation. He had no medical treatment, and continued to work at his trade as coppersmith until he came to the hospital, though frequently obliged to "knock off" for a few hours from sheer weakness.

When first seen, was very weak; countenance anxious, and expressive of debility; mind clear; was deaf, but had no tintinnus aurium; had lost flesh greatly; tongue red at edges and tip, but covered with white fur in centre; abdomen rather large; he is slightly constipated; some pain on pressure in right iliac fossa; ten or twelve large, well-marked rose-spots on abdomen and lower part of chest. He has an occasional slight cough.

January 8, A.M.—Pulse, 81; resp., 24; temp., 100.5° P.M.—Pulse, 90; resp., 24; temp., 103.5°.

The treatment in this case has consisted simply of rest in

bed, concentrated liquid diet, and a small quantity of wine. Fresh spots have appeared in crops, but they are now fading, and there is great improvement in the patient's condition. Convalescence is evidently beginning. Though his bowels were constipated, f3ij of castor oil produced repeated movements.

These walking cases of typhoid fever are not very uncommon, and, though they are usually mild as regards the character of the disease itself, they often lead to a fatal termination. This is no doubt due to the fact that the patient, unaware of his condition, continues to move about, to expose himself, to eat such food as is presented to him, as usual. He suffers more from the want of the physician's warning and advice in regard to such matters as these than from the want of medicine. There appears to be a tendency in cases of typhoid fever occurring during a given season in the same locality, to present the same general characteristics,—that is, to conform to a special type in some measure. This type varies in different seasons. The cases that have come under observation in this house during the last three months have presented a remarkable instance of this. They have all been of mild character, without marked head-symptoms, and without diarrhoea as a prominent symptom; while they have, at the same time, exhibited in every case the rose-colored spots over the chest and abdomen, in small numbers, but of unusually large size.

January 21.—This patient again brought before the class. He is fully convalescent. The spots have disappeared, and his temperature has been normal for several days. Several small abscesses have appeared in different parts of the body. This is not uncommon in the convalescence from low fevers. The patient is now taking tr. ferri chloridi gtt. xx, q. q. h. The pus must be freely evacuated. He now takes solid food, and sits up part of every day.

CASE OF RE-AMPUTATION AT THE HIP, WITH REMARKS ON THE OPERATION.—Assistant-Surgeon Geo. A. Otis, U.S.A. (*American Journ. Med. Sciences*, January, 1871), narrates the case of Julius Fabry, a United States soldier, who underwent primary amputation of the left leg on August 16, 1864, for gunshot injuries. A second amputation, viz., through the knee-joint, followed on the 23d of August, which, in turn, was succeeded by resection of the protruding condyles in the following December. From this time the thigh (Fig. 1) pre-

Fig. 1.



sented the ordinary appearance of necrosis of the shaft of the femur following amputation, and for which—May 15, 1870—nearly five years after the date of the first amputation, disarticulation of the femur was performed by Assistant-Surgeon Otis.

In consequence of the mass of involucre anteriorly approximating nearly to the groin, it was deemed best to secure the anterior flap by cutting from without inwards. A long, semilunar incision was accordingly made from a point on the tuberosity of the ischium to a point midway between the anterior superior spinous process of the ilium and the tro-

chanter major, dividing the skin and subcutaneous tissue, and the flap was then rapidly dissected and reflected to within a hand's-breadth of Poupart's ligament. Then, with a single sweep of the knife, the muscles of the inner and anterior part of the thigh were divided and the joint laid open (Fig. 2).

Fig. 2.



The coats of the main vessels were soft, and some delay was caused before they were properly secured.

Fig. 3.



The operation was then completed by connecting the angles of the first incision by a horizontal cut through the gluteals and the division of the remaining articular attachment. The parts were found to coaptate perfectly. No untoward symptom of importance followed. Fabry was about by the twenty-first day, and subsequently entirely recovered. The stump was dissected, when it was found that the entire shaft of the femur was necrosed and enveloped in an enormous involucre (Fig. 3).

The author concludes by a brief summary of all the recorded cases of re-amputation at the hip-joint, amounting to twenty-one. Of these, fourteen, or sixty-six per cent., were successful; so that the conclusion would appear to be that in incurable disorders of thigh-stumps, resulting either from injury or disease, disarticulation at the hip is the proper remedy. Dr. Otis recommends, as a prothetic apparatus for the survivors of this operation, a gutta-percha artificial stump nine or ten inches in length, firmly strapped to the pelvis by a broad chamois-lined canvas band, to which an ordinary artificial limb for thigh-stumps can be attached.

UTERINE INERTIA OVERCOME BY MANUAL DISTENTION OF THE PERINEUM.—Dr. Van der Meersch (*L'Union Médicale*, May, 1870), having noticed that the distention of the perineum by the child's head, or of the vulva by the forceps, produces reflex uterine action, has employed a method which induces like results. Towards the end of labor, when the pains grow feeble or complete inertia takes place, he introduces the two fingers as far as the head of the child, separates them as widely as possible, applies their tips to the posterior vaginal wall and slowly draws them down to the external opening, which he distends as much as possible by pressure on the posterior commissure. He claims repeated success for this simple method.

THE MEDICAL TIMES.

A SEMI-MONTHLY JOURNAL OF
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EDITORIAL.

THE BOARD OF PUBLIC CHARITIES.

BY an act of Assembly, dated 24th April, 1869, the Senate and House of Representatives of the Commonwealth of Pennsylvania authorized and directed the Governor of the State to appoint a Board of Public Charities. This board was to consist of five commissioners, together with a general agent and secretary. After some delay in organization, the following gentlemen were finally appointed to fill this highly responsible position: Messrs. Hiester Clymer, Charles A. Woods, George L. Harrison, George Dawson Coleman, and Thomas L. Kane. Mr. Kane was elected President of the Board, and Dr. Wilmer Worthington was appointed General Agent and Secretary.

The duties and powers of this board were defined with considerable detail. The commissioners are required to publish a full annual report, "embracing all the respective proceedings and expenses during the year, and showing the actual condition of all charitable and correctional institutions within the State, with such suggestions as the board may deem necessary and pertinent." They are also required to consider all applications from charitable institutions for State aid, and to state in the annual report their opinions of such applications. To enable them to discharge these duties, the Legislature vested in this board full visitatorial powers, and also authorized them to call upon the superintendents of all charitable or correctional institutions for an annual report "of such facts and statements concerning the same as may be required." No less comprehensive powers could enable such a board to discharge satisfactorily the task set before it; and when this act was finally approved and the commissioners appointed, we felt that a brighter day was dawning for the almshouses, asylums, and prisons throughout our commonwealth. Seven months have passed since the organization of the Board of Public Charities was completed: the Commissioners have, perhaps, taken no very radical step towards reforming any abuses they may have discovered, but there have already been frequent indications that a good work was going quietly on under their efforts, and we were looking forward with interest for the publication of their annual report, which might be expected to afford much valuable information. It caused us no little satisfaction, then, at first, to receive a small pamphlet bearing date of 16th January, 1871, and entitled "A Report from the President of the Board of Public Charities."

But what was our surprise at finding that, so far from even pretending to meet the requirements laid down by the act of Assembly for the annual report, this paper is issued without the consent or even the cognizance of the commission, and is, from beginning to end, a mere tirade against the board, interlarded with fragments of sage advice to the Legislature upon the true scope of public charity, and the duties of the Representatives in regard to this important subject!

The Commissioners are charged with neglect of duty, with disobedience to instructions, with inactivity and incompetency. Even the disinterested and public-spirited zeal which they have exhibited in gratuitously devoting themselves to the discharge of their duties is made the occasion of a most ill-placed sneer at them as "gentlemen of independent means," who "are placed above the people only by their not laboring under the necessity of working for their daily bread." It ought, however, to encourage these unfortunate gentlemen to find that, although they have shown themselves most signally inefficient when serving in such an independent position, Mr. Kane still thinks so well of them as to "hardly entertain a doubt" that they would make passably good clerks, if well watched by an exacting chief. From the general tenor of his report, however, we should advise them, should they ever find themselves under the necessity of seeking such a clerical position, to look elsewhere before applying to Mr. Kane for a recommendation. Indeed, the president appears to have lost all patience with his colleagues; so much so that, having punished them sufficiently by his sovereign and sweeping censure, he calls upon the Legislature to abolish the Board of Public Charities entirely.

If it were not for Mr. Kane's position as president of the board, and the apparent authoritative character of the present report, the ill nature and discourtesy which are its main characteristics might have provoked a momentary feeling of irritation, but would have merited no further attention.

We can, indeed, scarcely believe it possible that the Legislature will accord any consideration to this proposal; and yet such is the paramount importance of this board that we feel ourselves constrained to add our utterance to the public voice which has already spoken unmistakably in its favor.

No one familiar with the operation of any great hospital, almshouse, or prison can fail to be painfully conscious that, despite the most attentive care on the part of the managers and officers, grave abuses are apt to creep into the administration of its affairs. Experience has shown that this is very apt to occur even in those public institutions seated in the midst of large and highly-cultivated communities, where we might expect so close and constant a scrutiny would be exercised as effectually to prevent any such result. But what check can the Commonwealth have upon the mode of management of those institutions which are seated at a distance from large cities, and where the officials in charge are rarely troubled by inquisitive committees or visited by

reporters for the public press? The proper scrutiny in all such public institutions can be exercised and secured only by the existence of a special board, vested with full visitatorial powers. In no other way, further, can the Legislature obtain any reliable data to guide them in the important duty of voting appropriations to the various public charities. It seems superfluous to utter a single word in explanation of the absolute necessity of such a commission; the only regret is that Pennsylvania should have been so long behind other States in establishing it. Upon what grounds, then, can a man so well known for his philanthropy and high cultivation as the Hon. Mr. Kane possibly lend himself to opposing the maintenance of a board capable of effecting untold good in the cause of humanity? Assuredly not because he fails to appreciate the inestimable advantages which would be secured by its operations. No, we regret to say that the only argument which he advances in support of his recommendation is one based upon the alleged short-comings of his own colleagues in the present board. What, then, is the truth in the matter? Is this board composed of men so little fitted for the discharge of the duties of the position, and who have shown themselves inactive and neglectful? We believe we only state the general feeling of the community in saying that the choice of these gentlemen by the Legislature appeared most judicious. Their character for intelligence and benevolence is known to all; and the very peculiarity in their position—as “gentlemen of independent means”—which points one of Mr. Kane’s most vigorous rebukes, appears to us to be one of the chief elements of the great strength and efficiency of the board.

From whom are we to expect the most outspoken reports as to the condition of public institutions, the most fearless exposure and censure of abuses, the most bold and uncompromising advocacy of reforms, the most impartial and unbiassed recommendations for appropriations? From officials depending for their means of livelihood upon the salaries connected with their positions, which they hold by the uncertain tenure of personal favor or political influence? It seems to us indisputable that if devoted and self-sacrificing men can be found willing to undertake the work who, in addition to energy, intelligence, and practical ability, are so richly blessed with this world’s goods as to be beyond the necessity of a salary for their labors, and therefore beyond the fear of losing their appointment, we will most assuredly secure the desired result. These men do not seek or require the position; communities should rather feel that such positions need their services.

We are glad that the Board of Public Charities has not remained silent under the imputations cast upon them; and in an able memorial, addressed to the Legislature, dated 21st January, the various statements of the president are temperately but most forcibly refuted. From this we learn that the degree of inactivity shown by the board consists in having carefully and thoroughly inspected twice within twelve months all the “State institutions;” in having travelled many thousands of

miles to visit these prisons, almshouses, and hospitals, and in having, as we can testify from personal knowledge in some cases, given careful study to their mode of management, offered valuable suggestions for the removal of defects or the securing of greater efficiency, and followed up these suggestions by laborious efforts to obtain the improvements indicated.

Their disobedience to their instructions to prepare an annual report appears to consist in having presumed to suggest some modifications of a report drawn up by the president without the aid or co-operation of any other member of the board. In short, we can only conclude that the real source of Mr. Kane’s dissatisfaction with the board is the unwillingness of his colleagues to adopt his pet theories on social reform and public charity, and to obey implicitly his directions in carrying them out.

We cannot feel with Mr. Kane that this constitutes a just and sufficient ground for repealing one of the most beneficent and necessary acts ever passed by our Legislature. So far, indeed, are we from sharing his view of the subject that we would wish to see the commissioners strengthened to the utmost by the support of the public and the cordial co-operation of the Legislature. We would wish to see every obstacle removed which impedes the efficient action of the board; and we regret that Mr. Kane has allowed his temper so far to master his courtesy and judgment as to lead him to make an unprovoked and unwarranted attack both on his colleagues and on an excellent act of Assembly.

MEDICAL SERVICE IN THE NAVY.

THERE has been manufactured in the Navy Department, by irresponsible officers of the “line,” a book containing more than fifteen hundred regulations, to guide the official conduct of persons employed in the navy. The collection is sanctioned by the Secretary of the Navy, though many of the regulations are in conflict with both the letter and spirit of the statutes, as well as with the dictates of good sense. The work was prepared in conclave by a few line officers exclusively, printed and issued without the knowledge of any staff officer, and stamped as a code of law by the approval of the Secretary of the Navy. It may be justly characterized as the legislation of a privileged and preferred class. A determination to disparage medical and all other staff officers is apparent throughout its pages. A single reference is enough to sustain this assertion.

One of these regulations substantially requires that captains or commanders of the line shall be associated with surgeons to determine a question of permanent disability or claim for pension in every case occurring in any naval hospital. The question involves, of course, discussion and consideration of the nature and character and cause of the disease or injury under which such claim is preferred. Is there any conclusive reason why captains and commanders of the line should be required to participate in work of this kind? Is it supposable

that the education of line officers at the Naval Academy qualifies them to determine questions touching the causation of disease and the degrees of disability resulting therefrom, or that those whose studies are especially and closely connected with such matters are incompetent to reach a just conclusion without extraneous assistance? Or is it pretended that medical officers are less honorable, less intelligent, less sensible of the requirements of the oath of office, than those of the privileged class, and hence need to be virtuously guided in the discharge of duties of this nature?

If line officers are in no degree qualified to judge in such cases,—and we believe they are not;—if medical officers are as faithful in the performance of all their duties as line officers,—and we believe they are,—to what circumstance can this offensive and useless regulation be ascribed, other than to ignorant prejudice and a settled purpose to impair the respectability of medical opinion, and, as far as practicable, to degrade medical officers before the naval service and the public? To thus snub men in the exercise of their vocation—to thus call in question their professional ability and official as well as personal integrity—is not the likeliest way to evoke all the energy and zeal men are capable of exerting in the performance of their duties.

We may properly ask, Whence is derived the authority of the Navy Department to assume legislative functions and make laws in secret sessions by unknown persons? It is reserved to Congress by the Constitution "to make rules for the government and regulation of the land and naval forces."

"An act making appropriations for the naval service for the year ending June 30, 1863, and for other purposes," approved July 14, 1862, provides (section 5) "that the orders, regulations, and instructions *heretofore* issued by the Secretary of the Navy be, and they are hereby, recognized as the regulations of the Navy Department, subject, however, to such alterations as the Secretary may adopt, with the approbation of the President of the United States."

Through a most liberal construction of this one sentence of a statute, it has been assumed that Congress has delegated to the Secretary its constitutional power to make rules for the government of the navy; and, under his authority and sanction, a sort of private printing-press has been established in the office for printing general orders and books of regulations concocted by a set or "ring" of favored line officers, always maintained in or around the Navy Department. They mean well—for themselves,—no doubt. In them there is no lack of zeal in making regulations. We regret that we are not quite so well assured of the quality of the wisdom and discretion used in their vicarious exercise of legislative functions. Possibly the revocation of this authority, by Congress annulling the section of the act above cited, would tend to improve the harmony between the line and staff officers of the naval service. Without the authority of any such statute, the Secretary may issue general orders as occasion for them arises; and these, with the statutes, should be sufficient

to guide gentlemen in the discharge of their official duties. It may be safely assumed that the Secretary of the Navy will not sign a general order without taking time to consider its import, while he may give his sanction to fifteen hundred regulations at once on his faith in the technical knowledge of those who contrive them. This piece of law may be repealed with advantage, because it constitutes a legal foundation for a system of quasi-legislation by three or four members of one class applied to control all classes in the navy, in many instances offensively and uselessly. Indeed, this bit of legislation virtually places the ruling of the service under the domineering spirit of an arrogant, self-created caste. The existing code is the third which has been prepared and printed in the Navy Department since 1865. The second one was suppressed; and so should the present one be.

CORRESPONDENCE.

NOTE FROM DR. JOHN J. REESE.

A PERIPATETIC ABORTIONIST.

MR. EDITOR:—Among the many signs of "progress" in our day and generation, I will mention one that has just come to my knowledge, and which is rather in advance of anything in its line that I have yet heard of.

Calling a few days ago upon one of my lady-patients, who had lately been confined, she mentioned to me the following circumstance.

About a month before the birth of her infant, she had been favored with a call, at her own house, by a very respectable-looking and well-dressed lady, (?) apparently about twenty-one years of age, who asked to see her, but without sending up her own name. When she came down to the parlor, the visitor first politely introduced herself as the proprietor or vendor of a certain cosmetic and hair tonic, highly praising its virtues, and offering it for sale. My patient declined the purchase, saying that she never made use of anything of the kind. Then the lady-visitor astonished her hostess—a perfect stranger—with the remark, "I perceive you are in the family-way and near your confinement." To this the other lady quietly assented; and the visitor then remarked that the lady did not seem to her to be very strong, nor well calculated for having children, and, moreover, that the responsibility of bringing up children was so great that she ought not to think of incurring its risk; and, further, that she (the visitor) was in possession of a secret, which she had imparted (for a consideration) to numerous ladies similarly circumstanced, who had employed it with success, and that she would sell it to her for the sum of ten dollars! She assured her that by using this wonderful specific her child (then *in utero*) would be destroyed, and so come dead into the world; and that, by its further use, future pregnancies would either be prevented, or rendered abortive!

Fancy, Mr. Editor, the surprise, indignation, and even consternation of a refined, delicate, virtuous woman at such an infamous proposal! So soon as she could find utterance, she expressed her horror at the murderous idea, and immediately ordered the intruder to leave the house. On rising, the latter

coolly asked the lady "if she were an American." She appeared surprised upon being informed that she had been born in Philadelphia,—remarking that American ladies (*pro pudor!*) are not generally so squeamish on such matters!

As a parting legacy, she informed my patient that she (the patient) was quite too ethereal and spiritual for this lower sphere, and that she was better suited for a higher one!

Now, is not this one of the most shameless and artful pieces of villany heard of for some time? How plausible, insinuating, and calculated to work upon the feelings and apprehensions of some nervous, timid, and not over-scrupulous subject!

Being desirous of discovering and exposing this she-imp of Satan, I inquired of my informant as to her general appearance, etc., but I could learn nothing more than that she was a well-dressed, rather handsome young woman, with a remarkably fine complexion,—the latter, no doubt, due to the *cosmetic* which she so adroitly employed as an introduction to her victims.

I forbear making any comments upon this unblushing piece of female effrontery. It is sad enough to know that even reputable married women in our community will not unfrequently resort to the vile and often murderous arts of the professional abortionist; but it is even sadder to know that there are young females in our city going about from door to door, actually *peddling* their infamous "abortion-wares" in our streets!

1840 GREEN STREET, January, 1871.

TRANSACTIONS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CONVERSATIONAL meeting was held January 11, 1871, at 8 P.M., Dr. W. H. Pancoast, President, in the chair.

Dr. W. H. PANCOAST presented a case in the person of Wm. Paul, aged 13 years. When eighteen months old, he was affected with what was called remittent fever. This was accompanied with evident congestion of the brain, the child lying in a semi-comatose condition, with tossing of the head to and fro. Finally an abscess discharged from the left ear. The brain-symptoms were ameliorated, and the child soon became well.

He is now suffering from talipes equino-varus of the left leg. Dr. W. H. Pancoast has often seen, in his experience, club-foot deformity said to be the sequence of convulsions in infancy. There is an apparent difficulty, in this case, in supposing the abscess to have involved the brain, as the undeveloped and distorted limb is on the same side as the outlet of the abscess. In this limb there is a want of development of the plantar fascia; the bones on the inner side of the foot are atrophied; the extensor muscles of the foot are lengthened, and the bones on the outer side of the foot are large. They are so much out of position, from the stretching of the ligaments and the twisting of the foot, that the lad walks on the back of the foot: on the upper surface of the cuboid bone there is a callous heel, while the natural heel is soft and delicate, and is twisted upon the inside of the foot.

The treatment that Dr. P. proposes to adopt in this case will be, first to cut the tendo-achillis and probably the tibialis anticus and posticus,—the soleus muscle, though a little short, may not need cutting from the gastrocnemius,—also the plantar fascia, and then apply an instrument with two screws—one to bring down the heel and the other to force the foot outwards.

This done, the muscles and bones will require time to regain their natural position.

The fact that the abscess had opened on the side where the muscles are paralyzed, is an interesting feature in this case, and raises the question whether the abscess had affected the other side of the brain, or had extended down the spinal canal along the cord.

Dr. GOODELL remarked that atrophic infantile paralysis resulting in deformity often occurs from a slight cold, and is usually sudden in its manifestations. The seat of the disorder is generally found in the spinal cord. The pathological changes are at first congestion, then proliferation of the connective tissue, with consequent pressure upon the nerve-tubules, terminating finally in sclerosis. Thus certain groups of muscles are paralyzed, and an adapted deformity takes place. Faradization is the best remedy when the disease has not advanced beyond six months' duration; after that period the deformities can be reached only by surgical treatment, because by that time the paralyzed muscles are hopelessly atrophied by a granular degeneration. But in this lad, even with an appropriate apparatus, much time will elapse before the tarsal bones could grow out of their present wedge shape. In his opinion, the abscess of the ear was a mere coincidence, and not the cause of the paralysis; for, apart from the very generally fatal termination of abscesses of the ear communicating with the cranial cavity, the constitutional symptoms would have been far more formidable, whilst the arm on the same side would have been paralyzed equally with the foot. For these reasons he was disposed to refer this lad's paralysis to a spinal rather than to a cranial origin. He further narrated the history of a fatal case of abscess of the internal ear, attended with necrosis of the temporal bone. In this case there was paralysis of the hand and foot of the same side, because the abscess was exerting a pressure upon the base of the brain, below the point of decussation of the anterior columns.

Dr. ANDREWS exhibited an encephaloid tumor of the neck, with the following remarks:

Joshua Shaver, the patient in this case, aged 37 years, is a native of Luzerne County, Pennsylvania, a blacksmith by occupation. He always enjoyed good health till about four and a half years ago, when a small tumor made its appearance in the submaxillary region, the consequence of what he denominates a "cold sore throat." From the description it was evidently an enlarged lymphatic gland in the region of the submaxillary salivary gland. It grew at first slowly, but of late increased rapidly in size until it has obtained its present dimensions. There were no marked constitutional symptoms: he was much inconvenienced, however, from its pressure upon the surrounding parts. Its measurements were as follows:

Circumference of base, 14 inches; circumference taken antero-posteriorly, 11 inches; circumference taken vertically, 9 inches.

From the general history of the case, and the physical appearances presented, it was pronounced unquestionably encephaloid. It was extirpated by Prof. Pancoast in the presence of the students of the Jefferson Medical College. The wound was brought together by the ordinary interrupted suture. No untoward symptoms occurred, and the patient returned to his home, cured, two weeks after the operation. Microscopic examination showed unquestionable cancerous elements.

Dr. LAUGHTON, of Bangor, Maine, being present, gave an account of a peculiar case which had come under his notice. He stated that in October, 1870, Miss E., fourteen years of age, brought to his office for examination a portion of a lumbricoid worm which she had just blown from her left nostril, and although the head of the worm had been severed and lost in the expulsion, it was still alive and writhing vigorously. When ejected from the nose it was apparently about two inches in length, but on holding it up with the forceps it immediately lengthened to six inches or more.

The history and result of the case fully corroborated the statement of the young lady. Some two years prior to that time she felt uneasiness in the posterior nares, which was soon followed by a watery or mucous discharge from that locality, which induced her to suppose that she was suffering from catarrhal affection. In a few months occlusion of both nasal passages occurred, producing necessarily a change in her

speech, such as is caused by nasal polypi. She did not so much as breathe through the nose for nearly two years.

Dr. L. made a careful exploration of the parts with a sound, and Belloc's canula, and by the nasal douche, and found that no obstruction existed to the free passage of air, liquids, or instruments. The discharge ceased in a few days under the use of a mild wash of chloride of zinc, respiration and speech became normal, and the patient was cured. Not having seen the young lady previous to her calling at his office, the early history of this interesting case has been given as obtained from her mother, who is a highly respectable and intelligent lady.

Dr. COHEN thought it most probable that this foreign body had been lodged in the posterior nares, the more so since there was no history of sudden spasmodic cough or suffocative spasm. He had known pieces of wood to remain lodged in this region and give rise to cough.

Dr. GOODSELL mentioned the case of a corpulent lady approaching the menopause, who had been long afflicted with an incessant metallic cough. For this, venesections, blisters, expectorants, and antispasmodics had been in vain resorted to by several physicians, including himself. Finally, after a dreadful paroxysm of coughing, she threw up a lumbricoid worm. Acting upon this hint, he gave large doses of santalin, which expelled a prodigious number of these parasites, and resulted in an immediate and permanent cure.

At the yearly stated meeting, held January 18, 1871, at 4 o'clock P.M., Dr. W. H. Pancoast, President, in the chair, the following officers were chosen by ballot for the ensuing year:

President.—J. Aitken Meigs, M.D., 423 South Broad Street.

Vice-Presidents.—A. H. Fish, M.D., 1607 Vine Street; W. B. Atkinson, M.D., 1400 Pine Street.

Recording Secretary.—L. S. Bolles, M.D., 1609 Spruce Street.

Assistant Recording Secretary.—N. Hatfield, M.D., 501 Franklin Street.

Corresponding Secretary.—T. J. Yarrow, M.D., 1315 Girard Avenue.

Treasurer.—William M. Welch, M.D., 1230 Spring Garden Street.

Censors.—H. St. Clair Ash, M.D., 1112 Vine Street, term expires 1872; Charles S. Boker, M.D., 1622 Chestnut Street, term expires 1873; Alfred Stillé, M.D., 1500 Walnut Street, term expires 1874; Andrew Nebinger, M.D., 1018 South Second Street, term expires 1875; H. Y. Evans, M.D., 1631 Green Street, term expires 1876.

REVIEWS AND BOOK NOTICES.

MEDICO-CHIRURGICAL TRANSACTIONS. Published by the Royal Medical and Chirurgical Society of London. Second Series. Vol. liii. 8vo, pp. lx., 305. London, Longmans, Green, Reader & Dyer, 1871.

The fifty-third volume of the Medico-Chirurgical Transactions keeps up to the reputation of its brethren, and is one of the few medical annuals which do not show signs of decrepitude with advancing years. About one-seventh of its bulk is occupied with a list of presidents, officers, and fellows of the society, which is eminently unprofitable reading at fifteen shillings per volume; especially is it so when repeated from year to year. It may be necessary to enumerate the officers yearly, but a list of some six hundred fellows is rather an expensive luxury to indulge in at an annual feast, and might both with profit and economy be reserved for a *bonne bouche*, say, for every tenth year. Eight of the papers are surgical, and five are medical.

Mr. Pollock, of St. George's Hospital, relates eight cases of amputation at the knee, of which seven were successful and one resulted fatally. He gives a table of forty-eight cases, and reprints one of Dr. Brinton's containing forty-five. Of the total number, sixty-seven recovered and twenty-six died. He argues in favor of leaving the articular cartilage and patella undisturbed, when not invaded by disease, and thinks that the operation should be regarded with favor, as less dangerous than amputation through the thigh. He gives full credit to American surgeons for their efforts in this field of operative

surgery, and seems largely indebted to Dr. Brinton's much more comprehensive article published in the *American Journal of the Medical Sciences* for April, 1868.

Mr. Poland, the well-known surgeon of Guy's, narrates a case of compound fracture of the patella, with tables and an analysis of sixty-nine cases. The paper is the most complete upon the subject with which we are acquainted in our language, and too elaborate for analysis in our narrow limits.

Mr. Curling communicates a case for Mr. Little, late assistant-surgeon of the London Hospital, in which he succeeded in fishing out of the stomach a gold plate an inch and three-quarters long and one inch and a quarter wide, on which were four artificial teeth. The only difficulty experienced was in getting the foreign body past the narrowed portion of the oesophagus at its junction with the pharynx. He was certainly fortunate in obtaining a result which must be encouraging in similar cases.

Mr. Gant, of the Royal Free Hospital, records twenty cases of excisions of joints for disease, without a death. Nine were of the knee, of which six were successful and three were subjected to amputation, in one case after a second excision. Six cases were of the hip and five of the elbow, and all made good recoveries. In one of the elbow cases a repetition of the operation was required. When we add that, with the exception of one case of knee-joint and three of the hip, all the cases occurred in adults, it will be seen that this is a remarkably good average.

Sir Henry Thompson follows with one hundred and eighty-four cases of lithotomy, and records eleven additional ones in a postscript. Only thirteen cases are recorded twice, and no case of a third repetition of the operation on the same person is included; so that we have a total of one hundred and eighty-two individuals. The extremes of age were twenty-two and eighty-four years, only three being below thirty. In all cases where the stone was supposed to equal one ounce in weight, lithotomy was preferred and advised, and one or two of the fatal cases in the list are attributed to patients refusing to submit to lithotomy, and selecting lithotripsy, in opposition to the advice given. The health of most of the patients was below par. Sir Henry lays stress upon the fact that he has never removed by cutting the stone which he had once attacked with the lithotrite. Twelve deaths are recorded, of which six died from unknown pre-existing inflammation of the kidney and ureter, four died from acute cystitis, and two succumbed to pyæmia. Three conditions are specified as leading almost certainly to death, even without an operation: they are—first, marked sacculation of the bladder; second, chronic pyelitis, with distended ureters; and, lastly, organic changes in the kidney. By deducting the cases in which these complications existed, it is claimed that not more than seven out of the twelve deaths can be attributed to the operation. In short, Sir Henry Thompson thinks that, with the instruments now in use, lithotripsy, *gently* and properly performed, ought to have exceedingly small influence in the production of after-trouble. Excluding those cases where some phosphatic debris was removed shortly after the operation, thirteen cases are noted where a second distinct calculus was formed at the expiration of a year or a longer period; in five of these a fresh stone had descended from the kidney, and in eight phosphatic calculi had ensued upon chronic cystitis. In one of the latter number, phosphatic accumulation had taken place upon the partially exposed surface of an encysted calculus. Of course only in those cases where there was chronic cystitis induced can lithotripsy be held accountable for the return of the disorder. We best get at the estimation in which this operation is held by the distinguished author of the paper before us, when he concludes that where the stone is not larger than a small nut the operation is absolutely without danger, as much so at least as is the passing of a catheter.

One hundred and twenty-two of the stones were uric acid and urates, forty were phosphatic, sixteen mixed, four consisted of oxalate of lime, one of pure phosphate of lime, and one of cystic oxide. In fifteen cases a fenestrated instrument was used; in all the rest the simple unfenestrated lithotrite was employed. Appended to the paper are short histories of one hundred and eighty-four cases, in each of which is included the name of one or more gentlemen who saw the case with the author.

We have been led into making a longer abstract of this paper than of the others contained in the volume, both from its intrinsic value as so large a contribution to the subject of lithotripsy, and because we have always admired Sir Henry Thompson's style, which, for fairness, perspicuity, and simplicity, we rarely see equalled.

The next paper is one upon supra-condyloid amputation of the thigh, in which Dr. William Stokes, Jr., proposes to amputate just above the condyles, and, removing the articular cartilage of the patella, bring about union between the bones, as Pirogoff does at the ankle. Two successful cases are related, and a lithograph of one is given. We fail to perceive the reality of the advantages claimed for this proceeding, nor do we admit the superiority of the mongrel "anchyloid" which he uses in the place of "anchylosed."

A short paper on a case of extroversion of the bladder in a female, by Mr. Barker, of Melbourne, is interesting from the success obtained by operation, but is quite obscure in the descriptive details. The two lithographs with which the article is ornamented would be more valuable were the lines of incision laid down on one of them. We judge that the means Mr. Barker employed were less likely to be successful than those recommended by Mr. Wood, and which we have recently seen applied with marked success in this country.

Dr. Wilhelm Meyer, of Copenhagen, communicates through Mr. Marshall an elaborate article upon adenoid vegetations in the naso-pharyngeal cavity, which growths appear to be of common occurrence in Denmark. The prominent symptoms are stated to be deficient or flat production of nasal sounds, deafness, a pinched appearance of the nostrils, with deficient secretion. The rhinoscope does not seem to answer generally for the examination of these bodies, but they are readily detected by the finger. The treatment advised is the removal of the growths by a peculiar hoe or scraper devised and pictured by Dr. Meyer, and afterwards cauterization of the surface. This paper also is accompanied by a lithograph illustrating the gross and microscopical appearance of the tumors.

(To be continued.)

ON THE CELLULAR STRUCTURE OF THE RED BLOOD CORPUSCLE. By JOSEPH G. RICHARDSON, M.D., Microscopist to the Pennsylvania Hospital. Reprinted from the Transactions of the American Medical Association for 1870. With a plate. Pamphlet, 8vo, pp. 10. Collins, Philadelphia, 1870.

The conclusions reached in this paper are based upon observations on human blood corpuscles, subjected to the action of water, and on the large oval corpuscles of the menobranthus or proteus, by the aid of the highest powers,—the one-twenty-fifth and one-fiftieth of Powell and Lealand. With regard to the former, the author clearly proves that the human red corpuscle contains two different ingredients,—the *hæmato-crystallin*, freely soluble in water, and a second substance, "of a whitish hue and insoluble in water, even on prolonged maceration;" with regard to the corpuscle of the proteus, that the first element—the *hæmato-crystallin*—crystallizes within the second, and is easily distinguishable from it.

Here, however, to our own mind, the proof ceases. Clearly it is shown that the corpuscle contains two elements,—the soluble coloring-matter, or *hæmato-crystallin*, and a substance "of whitish hue and insoluble in water." But that the latter substance is the cell-wall or envelope of the corpuscle, is difficult to prove.

Let us see on what he bases such view. We are told that in the blood corpuscle of the menobranthus, the effect of the crystal is precisely that which would be produced by sticks of similar shape contained within an ordinary bladder partly filled with fluid. Thus, he has seen "a single crystal, as if increased in length, thrust out the ends of the oval corpuscle, until the conjugate diameter of the cell became one-third greater, while its transverse dimensions diminished to less than half its original magnitude." Or, when one or more crystals happen to lie across the long axis, "the folded edge of the capsular membrane will be seen supported by the crystals like a washerwoman's clothes-line upon its prop."

Further, he says he has succeeded in performing the very difficult operation of cutting one of these large corpuscles in

two, with sharpened needles, on the stage of the microscope, under a half-inch objective and No. 2 eye-piece; and that the colored contents were instantly evacuated, disappearing at once in the surrounding fluid, "while the cell-wall immediately shrunk together, and became twisted upon itself and around the nucleus into a perfectly hyaline particle."

He also alludes to the "wrinkled appearance" assumed by the red corpuscle on drying, and says that when pressure was made, by means of a mounted needle, almost directly over a red disk which had undergone this contraction, "its first effect was to round out the contour of the corpuscle and unfold the creases in its walls, the globule behaving as you might expect a bladder half full of water to do if you stepped firmly upon its centre; on continuing the process, however, no rupture of the walls could be detected, the contained fluid appearing rapidly to transude through its former envelope, which, on the needle being removed, collapsed to perhaps half its former size, and presented the aspect of a loose bag, almost without colored contents, surrounding the nucleus."

He finally says that the addition of fresh water to blood "occasionally afforded an admirable proof of the existence of a membranous envelope," first increasing the "thickness of the corpuscle," causing it to become gradually less elongated, and finally to assume a "spheroidal form," the colored portion being rapidly dissolved out, "leaving the nucleus and cell-wall more distinctly visible." Thus, he says, "I was enabled to satisfy myself conclusively that it possessed a bladder-like cell-wall, perfectly flexible (now that it was no longer distended with hæmato-crystallin), and capable of being dimpled in, as it were, by the force of the current impinging upon any side, until it applied itself accurately to the subjacent surface of the nucleus, thus furnishing strong evidence against the doctrine of a sponge-like stroma (or oikoid), as taught by Brücke and Stricker, being a constituent of the red blood corpuscle."

We have been thus careful to state all of the points of the author, that we may not fail to do them justice, and that others who may meet them may give them their own interpretation, without being biased by the subsequent remarks which we may make.

We must be pardoned, however, if we now proceed to state wherein we consider his reasoning deficient. It may be comprehended in a few words, and lies in this, that he concludes, that because these phenomena which he has observed are compatible with the supposition that there is a cell-wall to the blood corpuscle, they cannot be compatible with any other view. Because bodies having cell-walls act in this way, it does not follow that bodies having no cell-walls will not act similarly. So with blood corpuscles. Though they might exhibit these phenomena if provided with cell-walls, it does not follow that they may not present the same phenomena under similar circumstances, and yet not have distinct cell-walls.

But, to take up the points separately, passing in a reverse order from that in which we have stated them, he says that the "dimpling in" of the cell-wall by the force of the current impinging upon one side is strong evidence against the view of Brücke and Stricker that there is a sponge-like stroma as the basis-substance of the blood corpuscle, in which the *hæmato-crystallin* is held in solution. We believe the error lies in applying these words "sponge-like stroma" too literally. There need not be associated with such a view any idea of *structure*; the sponge-like stroma may be, and undoubtedly is, a structureless jelly-like substance, which may take up the *hæmato-crystallin* in solution, just as a piece of gelatin will soak up water, swell out, and become colored by the absorption of a colored fluid, which it will again give up when subject to a fluid of such density as to promote an osmosis in the opposite direction. Nor is there any reason why such a body, rendered flexible by the exosmosis of that which gave it "body" or substance, should not "dimple in" when a current of water impinged upon it; or, on the other hand, that it should not assume the spherical form when an endosmosis of liquid is permitted, though its original shape be bi-concave, and though a "sponge" of similar shape should not act similarly.

We must here state, also, that, in first considering this view of the German observers, we were ourselves misled by supposing that the *oikoid* must necessarily be a structured sub-

stance, and permitted ourselves to publish an objection to it on this ground, which we regret, since further reflection has convinced us that such a view is by no means necessary. But that a something—call it a “shell,” “frame-work,” or an “oikoid,” as you please—does remain after the coloring-matter is dissolved out, no one can deny. Low powers as well as high (higher than a one-fifth we have seldom used) show this conclusively. This substance Dr. Richardson prefers to call a cell-wall. We think it more consistent with modern observation to call it a structureless “frame-work” or “stroma,” though the latter perpetually suggests to us a structured appearance, which is clearly absent.

The phenomenon of the “wrinkled appearance” the author would scarcely expect us to allude to, since it is so clearly compatible with any of the views on the supposition that a removal of fluid has taken place. But the effect of pressure on the red disk which has thus undergone contraction, calls for some further notice. He says the “first effect was to round out the contour of the corpuscle and unfold the creases in its walls, the globule behaving as you might expect a bladder half full of water to do if you stepped firmly upon its centre.” This seems at first a fact of some weight in favor of the vesicular nature of the corpuscle. But if, on the one hand, we admit, with Beale, that the corpuscle is still “a mass of soft viscid matter” with “the more soluble matter dissolved out” by the water, or whether we adopt the German view that the crystalline matter is dissolved out and there remains the albuminous frame-work, composed of paraglobulin, still viscid, but presenting an elastic resistance, we would yet have, by a sort of undulatory movement of the substance of the mass, an unfolding and smoothing out of the corpuscle in response to pressure.

With regard to his section of the blood corpuscle, according to the author's own admission, there is need of further evidence.

Finally, the crystallization of the hæmato-crystallin, with the resulting effect upon the shape of the corpuscle,—the crystal propping out the supposed cell-wall,—these are phenomena quite as compatible with the existence of a frame-work of paraglobulin, the shape of which would be changed by the gradual formation and elongation of the crystal with which it was so recently in intimate union. By these means, however, we think, the author proves conclusively the existence of two separable proximate substances.

We have gone over all the points made by Dr. R. in favor of the vesicular structure of the red blood corpuscle, and have attempted to show that they are quite compatible with other views. After all, the question resolves itself into one of probabilities. Can a larger number of phenomena be accounted for on the ground of the presence or absence of a vesicular structure, or are there any phenomena which can be explained on one and not on another? If such exist, the former view must be accepted. We believe that none of the phenomena which are interpreted on the supposition of the presence of a cell-wall fail to be accounted for on the supposition of its absence, while we believe that certain phenomena can be explained on the supposition of its absence which a vesicular structure would not admit. A mere notice, however, which has already grown too long, is no place in which to state them.

Although this criticism seems adverse, yet we would not have the author believe that we desire to disparage his observations. Those on which this monograph is based certainly do him great credit; and we can attest, from personal examination of his specimens, that, so far as observations go, he is correct, and his drawings accurately delineate the appearances they indicate. We believe his reasoning, however, to be faulty, and should recommend in all instances a less positive mode of expression in these matters of minute structure, which the most skilled observers interpret differently, even when looking at the same object with the same powers. It is seldom that the words “conclusively proved” can be applied to matters to be determined by microscopic investigation, and especially where high powers are called into play. For, although these assist us greatly, yet it must be admitted that the very objects for which we call upon them are those of doubtful nature, else could they be settled by the average powers.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA. 8vo, pp. 77. Wheeling, Frew, Hagan & Hall, 1870.

The transactions of State medical societies are rarely distinguished by much that presents either interest or originality, and few will consider this volume an exception to the general rule. The report of Dr. Safford, on the Topography, Climatology, and Epidemic Diseases of Wood County, and that of Dr. Hildreth, on the Meteorology and Epidemic Diseases of Ohio County, possess, however, a good deal of local value, and are evidently the result of careful preparation. A paper of more general interest is that of Dr. John Frissell, of Wheeling, entitled a “Report on Stone in the Bladder and Urinary Passages,” which contains some accounts of cases in which lithotomy was performed by the author, and which have not hitherto been recorded. It is to be regretted, however, that Dr. Frissell has taken occasion to attack several well-known surgeons because they performed lithotripsy in cases in which he thought lithotomy would have been the better operation. Such attacks are always in the worst possible taste, and in this instance particularly so, because it does not appear that he has ever himself performed the operation, and therefore cannot judge of its value from experience. The volume also contains an account of a new stethoscope, devised by Henry J. Wiesel, of Wheeling, which is described as a wooden ovoid cylinder, one and a half inches in depth, which fits over the external ear, one end covered by a cushion, to fit the irregularities of the head, and an elastic band passed around the forehead, to hold it in its place. The following advantages are claimed for it: 1. It is portable. 2. It does not obstruct the ear. 3. It excludes all mechanical sounds. 4. It combines the mediate and immediate methods of auscultation. The description of the instrument is not quite so clear as is desirable, and it is possible, of course, that we may have misunderstood it; but it would seem to us to unite rather the disadvantages than the advantages of the two methods of auscultation.

BOOKS AND PAMPHLETS RECEIVED.

Physical Culture in Amherst College. By Nathan Allen, M.D. Prepared by the Request of the Trustees. Pamphlet, 8vo, pp. 46. Lowell, Mass., Stone & Huse, 1869.

The Inter-marriage of Relations. By Nathan Allen, M.D. Reprinted from the Quarterly Journal of Psychological Medicine and Medical Jurisprudence for April, 1869. Pamphlet, 8vo, pp. 56. New York, D. Appleton & Co., 1869.

Population: Its Law of Increase. By Nathan Allen, M.D. Read at the Meeting of the Western Social Science Association in Chicago, November 12, 1868. Pamphlet, 8vo, pp. 32. Lowell, Mass., Stone & Huse, 1870.

The Physiological Laws of Human Increase. By Nathan Allen, M.D. Extracted from the Transactions of the American Medical Association. Pamphlet, 8vo, pp. 27. Philadelphia, Collins, 1870.

Physical Degeneracy. By Nathan Allen, M.D. Reprinted from the Journal of Psychological Medicine, October, 1870. Pamphlet, 8vo, pp. 41. New York, D. Appleton & Co., 1870.

Catalogue of Medical Portraits. Prepared from Original Photographs under the supervision of W. H. Helm, M.D., of Sing Sing, N.Y.

Annual Announcement and Circular of Long Island College Hospital, Brooklyn, N.Y. Session 1871.

Food for Infants. By Hiram Corson, M.D. Reprinted from the Northwestern Medical and Surgical Journal, 8vo, pp. 14. St. Paul, Pioneer Printing Co., 1870.

The “Rubber Air-Cushion” in the Treatment of Complicated Fractures and other Serious Injuries of the Lower Extremities, with Illustrative Cases. By L. D. Mason, M.D. Reprinted from the New York Medical Journal, December, 1870. New York, D. Appleton & Co., 1870.

Bloodletting as a Therapeutic Resource in Obstetric Medicine. By Fordyce Barker, M.D. Reprinted from the New York Medical Journal, January, 1871. New York, D. Appleton & Co., 1871.

GLEANINGS FROM OUR EXCHANGES.

THE CAUSES OF THE OCCASIONAL FAILURE OF THE OPERATION FOR SQUINT.—In a paper read before the Medical Society of London, Mr. W. Spencer Watson (*British Medical Journal*, December 31, 1870) gave the results of an analysis of one hundred and three cases of convergent strabismus, and discussed the causes of the failure of tenotomy of the tendon of the rectus muscle, under the following heads:

1. The pathological conditions were in some instances misapprehended. Squint had been supposed to depend in ordinary cases upon mechanical obstructions to the movement of the muscles, or to bands of fasciæ; but, from the free mobility of the squinting eye when the other was closed, this was evidently an error. In two-thirds of the cases, hypermetropia was one of the conditions present in squint. At the same time, retinal changes had a material influence in determining the permanent character of the squint.

2. The operation might fail in improper cases: for instance, where there was eccentric fixation, an apparent strabismus was seen, and here an operation would give rise to diplopia, and would not probably produce improvement in the patient's condition unless the other eye were much impaired in visual power. Or, again, strabismus might be apparent where one eye was very much larger than the other, from progressive myopia in one, the other being normal. The cornea of the smaller eye appeared nearer the inner canthus than that of the larger eye, and this appearance might mislead the surgeon.

3. The operation might fail from not being properly performed: the tendon might be missed, or divided too far from the sclerotic insertion.

4. The after-treatment might be improper; the patient might object to a second operation, or to the wearing of spectacles; or, the refraction not having been ascertained, the surgeon might neglect to order the necessary glasses, or might cover up the eye too long.

In certain cases of periodic squint, apparent squint, and squint in very young children who could not wear glasses, as well as in cases due to brain-disease, the operation should not be performed. Mr. Watson remarked upon the importance of adapting the kind of operation to the size of the squint, and the advantage of using the strabismometer before operating, that of the late Mr. Zachariah Laurence being the most convenient and effective.

ANALGESIA IN VERTEBRAL CARIES, COMPARED WITH THAT IN HYSTERIA.—Rosenthal describes at length (*Vierteljahrsschrift f. d. prakt. Heilkunde, and Boston Med. and Surg. Journal*, December 29, 1870, p. 433) two cases of angular curvature, associated with chronic myelitis and local anaesthesia and analgesia. Charcot, in one case of hysteria with chronic contraction of the extremities, has observed sclerosis of both lateral columns and disappearance of the anterior roots; all other observations in cases of hysteria have resulted negatively. The points of resemblance between hysteria and myelitis are:

1. Slight cases present only analgesia. As the intensity of the disease increases, anaesthesia is added, following a centrifugal course; and anaesthesia is usually the first to disappear during recovery. This coincides with what Schiff demonstrated as occurring after section of the gray substance, and with what the author himself has observed in a case of traumatic lesion of one lateral half of the cord, and two cases of vertebral caries with disease of the nerve-cells of the gray horns.

2. Anaesthesia and analgesia in hysteria always observe the limits which Voigt describes as bounding the cutaneous nervous ramifications. This is also the case in spinal paralysis. Assuming that the spinal cord is the seat of the morbid processes which give rise to many cases in hysteria, we infer that simple diminution of the facility of transmission gives rise to analgesia, merely; that central lesions coincide definitely with anaesthesia; that anaesthesia and analgesia of the upper and lower extremities imply an affection not solely of the corresponding part of the posterior columns and gray matter, but *ex contiguo*, usually of that of the gray mass of the anterior horns, and hence motor paralysis.

DIVISION OF WHITE BLOOD CORPUSCLES.—According to the following method, cell-division can be tolerably easily and surely observed: A drop of the blood of the Triton is placed upon a microscopic slide, or, preferably, some warming apparatus is used; then the blood is put on a deck-glass with oiled edges, and, being covered up by a second deck-glass, is examined at a temperature of 75°–85° F.

At this temperature, it frequently occurs that the large granular cell arranges itself into two lumps connected only by a narrow band or bridge. This bridge gradually becomes longer and thinner, whilst in both parts of the cell, the liveliest changes of form are going on. Either of the following may now occur: the protoplasm, by means of the connecting band, again flows together and transforms itself into one lumpy mass, or else, and what is by no means infrequent, the narrow band breaks, and each part of the cell, after having drawn in the piece of band adhering to it, moves on with the most active changes of form.

In a few isolated cases, a nucleus-like body can be recognized in each of the thus newly-originated cells.

Another type of division is the following: a colorless cell gradually spreads itself out into an extremely thin plate; generally, at some peripheral point, a prominence makes its appearance, containing a nucleus sharply defined from the rest of the mass. This prominence enlarges somewhat, and gradually separates from the rest of the mass; the latter draws itself into a lump and moves on. Around the sharp edges of the nucleus, a trace of protoplasm is recognizable through the slow changes of form that take place.

A third form of division is, finally, seen in the wandering-cells of the tongue and cornea of the frog, described by Stricker* as *Abschauung*.

Observation shows that a cell of Triton's blood may divide more than once, and in different methods. In the white corpuscles of the frog, division, either by the breaking of a previously-formed connecting band or by the budding process, can also be seen on the application of heat.

The human white blood corpuscle can, with difficulty, occasionally be seen to divide under a temperature of 95°–100° F.

FATAL CEREBRAL CONGESTION CAUSED BY CHLORAL.—Dr. George G. Needham reports the case of a woman, æt. 50, suffering from mental uneasiness amounting to insanity, who took chloral in 30-grain doses, as follows:

On the 21st, at 5.30 P.M. and at 11 P.M.; on the 22d, at 10 A.M. and 3 P.M. (each a half-dose); on the 23d, at 1 A.M., at 8.10 A.M., and at 1.30 P.M. On the evening of the 22d, before taking the fourth dose, she was out of bed and moving about. On the morning of the 23d, she seemed to be awake. "On the 23d, at 7 A.M., I found her," says the doctor, "sleeping, and with a somewhat rapid pulse, and at 6 P.M. she was still sleeping. On the morning of the 24th, I began efforts to waken her; pulse, 108; respirations, 27; pupils moderately contracted. These efforts were continued through the day and following night without avail. The most that could be done was to cause groaning, momentary opening of the eyes, and futile efforts at articulation. During the night $\frac{1}{6}$ gr. of strychnia was given hypodermically in three doses. Up to 4 P.M. of the 25th her condition remained stationary; breathing, 28–30, sometimes stertorous, but mostly quiet; nostrils faintly sensitive to ammonia; pupils contracted; conjunctivæ sensitive; feet warm; voluntary motions of limbs hardly perceptible during the day, but much more so during the night. From 4 A.M. her condition rapidly grew worse; her pulse rose and weakened, her coma became more absolute, and her respiration more stertorous and rapid. She died at 3.55 P.M."

At the autopsy, the brain alone was examined. It was found everywhere deeply congested, but otherwise apparently normal, save only in the presence of a sero-gelatinous exudation in the meshes of the pia mater.

ON TWO CASES OF DIPHTHERITIC PARALYSIS SIMULATING LOCOMOTOR ATAXIA. By T. GRAINGER STEWART, M.D. (*Edin. Med. Jour.*, May, 1870, p. 988).—Two cases are related in which, at intervals of three weeks and two months

* Studien, 1869.

respectively, after recovering from attacks of diphtheria, the patient became affected with symptoms simulating locomotor ataxia. In both there was marked unsteadiness of gait, with inability to stand with the eyes closed, but with preservation of muscular power. In one case there was also, at a later period, gradual diminution of sensibility and impairment of power. Both cases recovered perfectly under the use of rest, nourishing diet, sea-air, and sea-bathing, without any systematic internal treatment, though nitrate of silver was given for a short time in each case.

The points which the author indicates as important to bear in mind in diagnosing this form of diphtheritic paralysis from true locomotor ataxia, are as follows:

1. The history of sore throat in the diphtheritic affection, contrasting with that of sharp, shooting neuralgic pains and other prodromata in progressive locomotor ataxia.
2. The existence of throat-paralysis, indicated by nasal tone of voice and dysphagia, especially of fluids, occurring only in the diphtheritic.
3. The dilated pupils and paralysis of accommodation not occurring in any excepting the diphtheritic.
4. The suddenness with which, after diphtheria, the ataxic symptoms become developed.
5. The gradual superaddition of paralysis of cutaneous sensibility and of motion.

In this paper, and in the debate which followed (*id. loc.*, p. 104), the view is more than once expressed that the above cases are unique. A complete description of diphtheritic ataxia will, however, be found in Jaccoud's admirable work "Sur les Paraplégies et l'Ataxie du Mouvement," (art. "Ataxie Diphthérique," p. 631), and a well-marked and fatal case has been recorded by Dr. Gray (*Med. Times and Gazette*, February 6, 1869, p. 141).

THE INTIMATE PATHOLOGY OF CONTAGION.—The *Med. Times and Gazette*, October 15, 1870, notices a paper on this subject by Dr. Burdon-Sanderson, contained in the twelfth annual report of the medical officer of the Privy Council. He holds that the contagious material is neither gaseous nor soluble in water, but constituted by particles of excessive minuteness. Two views may be adopted in regard to the specific power of these minute particles: either they are imbued with a specific poison of a liquid character—which it is hard to believe—or depend for this power on something inherent in them, without which they could not exist. The one is the chemical, the other the vital, theory of infection. Thus far analogy certainly favors the latter assumption; but, going beyond, we are lost in a sea of mystery. Hallier and others have attempted to fathom this by invoking the aid of the phenomena of fermentation. In this process certain fungi are developed *pari passu* with the product of fermentation. Now, where putrefaction is going on, something similar is observed: exceedingly minute spherical bodies there abound, which, under certain circumstances, lengthen out and form what are called "bacteria," or, as many now prefer to term them in both stages, "microzymes." Can these be traced through their various degrees of development, starting off from one common seed, but maturing into bodies of very different kinds, each producing putrefaction or organic changes, also very diverse? Hallier's theory of the origin of cholera in a rice fungus is, we fear, doubtful. At best, even now it is a speculation, but it shows the direction taken by many modern investigators, and shadows forth what many believe to be the true theory of disease.

EXSECTION OF THE HEAD OF THE HUMERUS FOR "CHRONIC RHEUMATIC ARTHRITIS."—Professor Blackman, of Cincinnati (*Amer. Practitioner*, January, 1871), reports probably the only case on record, of removal of the head of the humerus in consequence of the changes produced in it by rheumatic gout. The patient was an Irishman, fifty years of age, who had very limited use of the left arm. The head of the bone was displaced on the axillary border of the scapula, and could be thrown easily from its new position by passive motion, giving a crackling sensation; a chain of enlarged lymphatic glands was traced down the axillary region, and a tumor the size of a large fist presented itself in the left mammary region, from which came a free purulent discharge. On the 24th of May, 1870, an incision was made down upon the joint, and when

the capsule was opened, a yellowish, thin fluid escaped, and a fistulous tract connecting the cavity of the joint with the pectoral abscess, was disclosed. Through the incision the dislocated head of the humerus was turned out, and two inches of softened porous bone removed with the saw. The head of the bone was flattened and its axis changed, and it presented the other morbid appearances so well described by Mr. Adams. On the 14th of June the abscess had disappeared, and three months later the incision over the joint had completely closed.

DR. GAMGEE (*Chem. News*, December 30, 1871) writes of "CHLORALUM,"—as the chloride of aluminium, now coming into use in England as an antiseptic and disinfecting agent, is called,—that, though not volatile, it may be made of great use as a disinfectant by means of a steam atomizer. Solutions of it of a sp. gr. of 1005 to 1010, containing from 1 to 3 parts to 140 to 70 of water, are strong enough to preserve meat and fish which have been dipped into them and then hung in dry air. In these, though the solution contains less than one per cent., the preservation is complete. He thinks it better than sulphurous acid, and, like the latter agent, it can be used where either the smell or the causticity of carbolic and cresylic acids interferes with their use. He has found that the use of carbolic acid is often given up on account of its odor, and that there is a growing predilection for inodorous disinfectant agents, to which fact he attributes much of the success of Condy's fluids.

An odorless disinfecting powder is now made, containing 30 per cent., which competes in price with the 15 per cent. carbolic acid powder, and it is hoped also soon to be able to furnish large quantities at low rates. A company in London prepares wool and wadding saturated with chloralum. These substances thus prepared are styptic and antiseptic, and may be used as dressings, air-filters, etc.

RECOVERY FROM INTRACRANIAL ABSCESS.—Professor N. R. Smith (*Baltimore Medical Journal*, December, 1870) records the case of a clergyman who consulted him in consequence of a fistulous opening, not so large as a goose-quill, in the left parietal bone, which had for twenty years daily discharged fetid pus, and gave rise to occasional pain and vertigo whenever it was obstructed by the granulations which invested its canal. A probe sank by its own weight, apparently through a fluid into the cavity of the cranium, fully two inches and a half, when it encountered the membranes of the brain. By exploring carefully with the instrument, the existence of a hemispheroidal cavity, almost coextensive with the parietal bone, was ascertained. Twenty years previously the patient sustained an accidental blow at the site of the lesion, from a sharp stone, which was followed by necrosis and final separation of a small sequestrum involving both tables of the skull. With the view of giving free vent to the confined pus, a disk of ivory-like bone, which included the fistulous opening, was removed by the trephine, and three ounces of fetid pus escaped. Light dressings were applied. The dura mater slowly rose up and obliterated the cavity, and when seen one year later, the patient had entirely recovered.

THE SPECTROSCOPE IN THE ANALYSIS OF WATER (*Chem. News*, December 30, 1871).—Typhoid fever broke out among those inhabitants of a London lane who obtained their drinking-water from a well, the water of which, besides containing a large amount of unoxidized nitrogenous matter, was unusually rich in chlorides. Mr. A. H. Church, suspecting the well-water to be contaminated by leakage from the drain connected with a neighboring public urinal, made use of the following ingenious expedient to test the matter: Having first tested ten litres of the well-water for lithium by the spectroscopic without finding a trace of that metal, he placed one gramme of a salt of lithium in the urinal, and within two hours was rewarded by finding, in one litre of the well-water, undoubted proofs of the presence of the salt. He considers lithium salts especially adapted for such a purpose, as they are apparently but little absorbed by most soils and gravels through which water usually passes. The application that may be made of this and similar tests is very extensive.

MIGRATION THEORY.—The *Quarterly Journal of Microscopical Science*, October, 1870, notices a paper read on this subject by Dr. Caton at the Biological Section of the British

Association. The results of a number of experiments on the mesentery of the frog were detailed, in which the phenomena described by Cohnheim were observed. Inflammation in the fish and tadpole had also been studied: in the former, congestion was found to be absent during inflammation; this peculiarity was referred to the venous heart. Though the formation of pus-cells was observed, migration was never seen. In the tadpole, migration was observed to occur very frequently, produced by the slightest congestion, and even when all local irritation had been carefully avoided. The general conclusions arrived at were that cell-migration depends on congestion, and that its connection with the suppurative process is very doubtful. Cell-migration in the tadpole was exhibited under the microscope on one of the days of the meeting.

PATHOLOGY OF ANGINA PECTORIS.—Drs. A. Eulenburg and P. Guttman, of Berlin, after having fully set forth (*Archiv für Psychiatrie*, ii. p. 15, 1869, and *Archives Générales de Médecine*, September, 1870) the history of the subject, and discussed all the common facts and the current theories, sum up in these terms: "Angina Pectoris is a neurosis both of motion and of sensibility. The symptoms to which it gives rise may be provoked by causes of a different nature, even extraneous to the heart. All the cardiac nerves are probably more or less affected in this malady, and the variability of the phenomena observed in different cases depends, without doubt, on the more or less active part that the nerves which unite together in the cardiac plexus take in the production of these phenomena. It is probable that the great sympathetic plays the most important rôle, for it is this which forms the major part of the cardiac plexus."

MR. BOLLMAN CONDY states in the *British Medical Journal*, that Condy's fluid (permanganate of potassa) is not an antiseptic or preserving agent, but merely a disinfectant, and that more than this is not claimed for it. As both it and fresh air depend for their virtues on the same element, viz., oxygen, which is a prime agent in decomposition, his first statement is self-evident. He thinks, however, that if the less educated portion of the community hear too often that substances ready to part with their oxygen are not antiseptics, they may doubt their value even as disinfectants, and hence pay less attention to cleanliness and ventilation than they now do.

CANCER OF THE THYROID GLAND.—Dr. Payne exhibited before the Pathological Society of London (*Med. Times and Gazette*, December 3, 1870, p. 660) a specimen of cancer of the thyroid gland in an elderly lady who had suffered for years from goitre. Lately she had bronchitis, dyspnoea, and loss of voice, supposed to be due to a thoracic tumor. After death it was found that the left lobe of the thyroid had pressed on the recurrent laryngeal nerve, and was converted into a thick-walled cavity containing creamy material like medullary cancer, also isolated nodules containing multiple nucleated cells. The mass really consisted of two structures,—that of ordinary goitre and that of cancer.

PATHOLOGY OF LEUCÆMIA LIENALIS.—Dr. Hofmann, in a paper on this subject (*Wiener Medizin. Wochenschrift*; *New York Med. Journal*, December, 1870), from a careful examination of the urine, and especially of its coloring matter, appears to have demonstrated that in this affection there is not only a diminished formation, but an increased disintegration of red corpuscles,—at least if the coloring matter of the urine is to be considered as a derivative of that of the corpuscles; if not, it must proceed from some other substance having strong coloring capacity.

DYSTOCIA FROM SYPHILITIC INDURATION OF THE CERVIX UTERI.—Dr. Putégnat (*Journ. de Bruxelles*, vol. xlvii.; *London Lancet*, April, 1870) mentions five cases of this kind, in which large and indurated ulcerations of the cervix were the cause of difficult parturition. All the confinements were premature. The first case necessitated incision of the os and turning, resulting in death to the mother. In the four remaining cases, the children all died in from two to five days after birth, and the labors were very tedious on account of the feeble state of the patients.

SUPERNUMERARY MAMMARY GLANDS.—A case is recorded in the *Revue Photographique des Hôpitaux* of a primiparous woman having two supernumerary breasts about the size of a small orange,—one situated in each axillary region. At the menstrual periods these glands were painful. After confinement the colostrum was found to be small in quantity and deficient in quality, as was likewise the lacteal secretion, which was established simultaneously with that of the normal organs.

CHLOROFORM DEATHS.—In the *Cincinnati Lancet and Observer* for January, 1871, Dr. W. W. Dawson adds twelve new cases to the melancholy list of "unavoidable deaths." We can hardly make an abstract, and must refer to the paper itself. Dr. D. believes a continued spasm of the heart is one cause of death, and occurred in a case under his care. He rests this belief upon the sudden cessation of the heart's action, and the fact that the heart was found empty.

INCONTINENCE OF URINE.—Dr. W. Thomson (*Lancet*, November, 1870, p. 703) highly recommends a dose of chloral at bedtime for this disease in children.

MISCELLANY.

ST. PAUL ACADEMY OF NATURAL SCIENCES.—This society was organized in 1870 by the election of Dr. R. O. Sweeney as President and Dr. Charles E. Smith as Secretary. The Academy was instituted by gentlemen interested in the study of natural history, for the purpose of forming a cabinet and museum which should illustrate the geology, zoology, botany, meteorology, etc. of the State of Minnesota. They have already secured eight thousand specimens, by gift, purchase, and exchange, and solicit from other institutions of a similar character an exchange of specimens.

A MARRIED DOCTRESS.—We learn, on what seems to be good authority, that the "leading lady"—to borrow a theatrical phrase—of the (female) medical profession in London is going to take unto herself a husband. Questions of interest come up in such a case. Will the lady continue to practise medicine and her husband to follow his own occupation? and if so, and the union should prove prolific, who will train up their offspring in the way they should go? One or two healthy children, to say nothing of a larger number, or of sickness, will take up nearly all the time of a young mother; and there is no profession or business which depends so entirely for its success upon the personal attention of its pursuer as does that of medicine.

ANTIQUE SURGICAL INSTRUMENTS.—It is stated that the Italian government has allowed M. Scoutetten to obtain photographs of over three hundred surgical instruments found in the ruined cities of Pompeii and Herculaneum. In this number there are only about sixty varieties.

APPLICATION for the office of assistant-surgeon in the navy is to be made to the Secretary of the Navy, accompanied by such testimonials as to general character and qualifications as may satisfy the Navy Department that the candidate is worthy of being admitted to examination.

A BILL to regulate the rank of staff officers in the navy passed the House of Representatives almost unanimously on the 23d of January. It needs the approval of the Senate, as well as of the President, to become a law.

CLINICAL EXAMINATIONS.—The Court of Examiners of the Apothecaries' Society in London now require, as a part of

their examination, that the candidates shall chalk out on the trunk of a healthy man the anatomical relations of the viscera of the thorax and abdomen. This plan has already been employed by the Examiners of the Royal College of Surgeons.

The Court of Examiners have been thoroughly convinced of the utility of this apparently easy test by the results of its application. This is a significant expression, and we are fully convinced that the introduction of this or any similar clinical test into the examination of the candidates for graduation at any American medical school would display its utility even more conspicuously.

SURGICAL EXPERIENCES DURING THE FRANCO-PRUSSIAN WAR.—Professor Billroth gave, in the opening lecture of his clinic this year, a highly interesting account of the results of his observation upon the wounds during the present war, in regard to the ease with which metallic bodies are reputed to become imbedded and incapsulated in the body. He remarks that the general experience has been that modern projectiles, as a rule, give rise to suppuration, sooner or later, when retained in the body, and that their imbedment without giving rise to pain or suppuration is quite exceptional. He makes one other statement, which will probably sound strangely to many of our readers, who have become familiar with the newspaper descriptions of the wounds caused by the balls from the mitrailleuse as being unusually severe and frightful. In all the hospitals visited by Billroth, embracing thousands of patients, he could not find, on the most careful inquiry, any account at all of the injuries done by these balls; so that, although larger than the balls used in the chaspepôt or needle-gun, they do not seem to make any characteristic wounds.

THE CHOLAGOGUE ACTION OF MERCURY.—Dr. Hughes Bennett has continued the experiments which formed the basis of the report of the committee of the British Association. He has especially studied the question whether mercurials possess any specific power of exciting the biliary secretion by irritating the orifice of the common bile-duct, as vinegar stimulates the salivary glands when applied to the orifices of the salivary ducts. The results of his experiments confirm entirely the conclusion reached by the committee, that mercurials are not cholagogues in any sense of the word.

DR. ELLIOTT'S SUCCESSOR.—Dr. William T. Lusk, of New York, has been elected by the Commissioners of Public Charities and Correction, on the nomination of the Medical Board, as Physician to Bellevue Hospital, to fill the vacancy caused by the death of the eminent Dr. George T. Elliott. The reputation which Dr. Lusk has acquired for professional talent and learning, and his success as a lecturer in the Long Island Medical College, and more recently in the Medical Department of Harvard University, Boston, would seem to fully warrant the selection made by the commissioners.

RAILWAY-ACCIDENTS.—We find in a secular paper a quotation from the *London Lancet* to the following effect: "During the past year (1870) a total sum of £333,715 was expended by railway-companies in the United Kingdom as compensation for personal injury, of which the Great Northern paid £28,000; the Great Western, £20,000; the Lancashire and Yorkshire, £19,380; the Midland, £24,988; the London and Northwestern, £73,804; and the London, Brighton, and South Coast Railway, £47,457. It would be interesting, but impossible, to collect particulars as to the injuries inflicted

upon their victims, whose hurts are supposed to have been healed by the application of more than a quarter of a million of money."

LIFE-INSURANCE.—It was recently decided in one of the U. S. courts that suicide was not a bar to the recovery of insurance, on the ground that insanity was a disease. We presume there must have been positive evidence of the insanity, other than the mere fact of self-destruction.

SCIENCE AND HOMŒOPATHY.—We believe we are correct in saying that, since the origin of Homœopathy, it has conferred no benefit, directly or indirectly, upon science at large; its students have never developed a single fact or principle, nor made a single important discovery, in working out their system. Moreover, we may assert, no prominent advocate of Homœopathy has ever become known as a scientific man, nor has any man of high standing in the scientific world ever become an advocate of Homœopathy. If these statements are not facts, they can be readily disproved.

MORTALITY OF PHILADELPHIA.—The following statements are condensed from the Health Office Reports:

	For the week ending	
	Jan. 28.	Feb. 4.
Diseases of the Brain and Nervous System	43	35
Diseases of the Organs of Circulation and Respiration	129	146
Diseases of the Abdominal Organs	15	33
Zymotic Diseases	17	25
Constitutional Diseases	5	13
Casualties	2	9
Stillborn	17	13
Unclassified	51	50
Unknown	1	4
Totals	280	328
Adults	145	188
Minors	135	140

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM JANUARY 18, 1871, TO FEBRUARY 3, 1871, INCLUSIVE.

- MILLS, M., SURGEON.—By S. O. 39, War Department, A. G. O., January 28, 1871, upon being relieved by Surgeon Perin, to report by letter to the Surgeon-General for assignment to other duty.
- PERIN, G., SURGEON.—By S. O. 39, War Department, A. G. O., January 28, 1871, to report to the Commanding General Department of the Missouri for duty as Medical Director of that Department.
- MECHEM, A. F., SURGEON.—By S. O. 40, War Department, A. G. O., January 28, 1871, granted leave of absence for six months on surgeon's certificate of disability.
- STORROW, S. A., ASSISTANT-SURGEON.—By S. O. 46, Headquarters of the Army, A. G. O., February 1, 1871, leave of absence extended thirty days.
- PHILLIPS, H. J., ASSISTANT-SURGEON.—By S. O. 5, C. S., Headquarters Military Division of the Pacific, granted leave of absence for thirty days.
- MIDDLETON, P., ASSISTANT-SURGEON.—By S. O. 43, War Department, A. G. O., January 31, 1871, relieved from duty in Department of Arizona, and to report to the Commanding General Department of the South for assignment to duty.
- MACRIN, C., ASSISTANT-SURGEON.—By S. O. 9, C. S., Headquarters Department of the Platte, upon being relieved by Assistant-Surgeon O'Reilly, to proceed to Fort Kearney, Nebraska, for duty at that post.
- O'REILLY, R. M., ASSISTANT-SURGEON.—By S. O. 9, C. S., Headquarters Department of the Platte, assigned to duty at Sidney Barracks, Nebraska.
- ROSE, GEO. S., ASSISTANT-SURGEON.—By S. O. 6, Headquarters Department of California, January 9, 1871, relieved from duty at Alcatraz Island and assigned to Benicia Barracks, California.
- MICHLER, W. H. H., ASSISTANT-SURGEON.—By S. O. 37, War Department, A. G. O., January 27, 1871, relieved from duty in Department of the Missouri, and to report to the Commanding General Department of the Platte for assignment.